

**AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING
ENGINEERS, INC.
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TC/TG/MTG/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/MTG/TRG No. TC 2.9 DATE: Tuesday, 02AUG2011

TC/TG/MTG/TRG TITLE: Ultraviolet Air and Surface Treatment

DATE OF MEEING: Monday, 27JUN2011 LOCATION: Montreal

MEMBERS PRESENT	YEAR APPTD	MEMBERS ABSENT	YEAR APPTD	EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE
See Attached Minutes for List				

DISTRIBUTION

<i>All Members of TC/TG/MTG/TRG plus the following:</i>	
TAC Section Head:	Thomas J. Sobieski (jtsobieski@atlanticbb.net)
TAC Chair:	Charles H. Culp (cculp@tamu.edu)
All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters:	Chapter Technology Transfer: Jean-Gabriel Joannette (jgjoannette@pageaumorel.com) Research Liaison: William F. McCoy (wmccoy@phigenics.com) Special Pubs: William S. Fleming (flemg@aol.com) Standards Liaison: Hoy R. Bohanon (hrbohanon@workingbuildings.com)
Manager Of Standards Manager Of Research & Technical Services	Stephanie Reiniche (sreiniche@ashrae.org) Michael Vaughn (mvaughn@ashrae.org)

**ASHRAE Technical Committee 2.9 (TC 2.9)
Ultraviolet Air and Surface Treatment
Main Committee Meeting Minutes**

**Monday June 27, 2011 – 10:00 to 12:00
Montreal, Québec, Canada
Fairmont Queen Elizabeth Hotel, Room: Hochelaga 5**

These FINAL minutes were approved by the Technical Committee in Chicago, Illinois in January 2012

“TC 2.9 Scope – TC 2.9 is concerned with all aspects of equipment and systems that utilize ultraviolet radiation to destroy or de-activate chemical and/or biological air and surface contaminants in HVAC systems and indoor spaces, including, but not limited to, effectiveness, safety, maintenance, and economics.”

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Steve Martin, Chair, called the meeting to order at 10:05 AM. Participants introduce themselves and an attendance sheet was circulated.

Six of 10 Voting Members present. Quorum achieved.

Voting Members Present
Name
Steve Martin
Dean Saputa
Jaak Geboers
Stuart Engel
Gus Farris
Matt Middlebrooks

Guests
Uri Rainisch
Bob Scheir
Brad Stanley
Ashish Mathur
Brian Rodgers

Corresponding Members Present
Name
Brian Hafendorfer
Richard Vincent
John Andros
Byron Hagen
Larry Simmon
Dave Witham
Robert Coleman
Josephine Lau
Kyung-Ju Choi

Steve Martin, distributed copies of the minutes from Las Vegas, Nevada, January 31, 2011 ASHRAE winter meetings. No changes were noted.

Matt Middlebrooks made a motion to approve the minutes from Las Vegas. Motion seconded by Eugene Faris. **Voting on approval of the Las Vegas meeting minutes was as follows: 6/0/0/4/10 [for/against/abstain/absent/total]. Las Vegas meetings minutes were approved.**

Chair’s Breakfast Report:

At the TC Chair’s breakfast, they asked for a list from each TC of people that would be willing to serve as paper reviewers and/or session chairs for future meetings. This is the list sent to our Section Head based on people volunteering yesterday.

TC 2.9 List of Volunteers to Serve as Reviewers/Session Chairs For Technical Papers/Sessions Related to Ultraviolet Technologies			
Name	Email	Paper Reviewer?	Session Chair?
Steve Martin	smartin1@cdc.gov	Yes	Yes
Gus Faris	gfaris@nailor.com	Yes	Yes
Richard Vincent	richard.vincent@mountsanai.org	Yes	NO
Brian Hafendorfer	bhafendorfer@trane.com	Yes	NO
Dave Witham	dave.witham@uvdi.com	Yes	NO

It was mentioned that the Conferences and Expositions Committee (CEC) was working on ways to improve the technical programs at ASHRAE meetings. ASHRAE has a web link where people can submit suggestions/complaints. That link is: <http://ashrae.org/events/page/2537>.

TC 2.9 Website Report: Bob Coleman

Prior to the Montreal meeting, the TC 2.9 website was completely up-to-date.

TC 2.9 Research Subcommittee Report: Dave Witham

Karin Foarde, Chair was unavailable. Dave Witham provided the update.

GPIC grants are available and ASHRAE will co-op funding.

The Backlog of RTARs has dwindled so that it may be easier to fund new projects.

Innovative grants are available up to \$125,000

Iain Walker has stepped down as our TC Research Liaison. William McCoy is our new Liaison.

Any new RTARS are to be submitted in August as that is when new funding will start; TC 2.9 could have up to four RTAR’s ready by the August 15, 2011 deadline. The TC priority for RTAR submission is whoever completes their RTAR first.

TC 2.9 Standards Subcommittee Report: Dean Saputa

Dave Marciniak, Chair was unavailable. Dean Saputa provided the update.

Steve Martin decided to remove Dave Marciniak as chair of the Standard Subcommittee as he has not attended the last 5 meetings.

Steve asked Jaak Geboers to serve as Chair the Standards Subcommittee. Jaak accepted on a trial basis.

SPC185.1 was accepted on Saturday, June 25, 2011 for final submission to ASHRAE for public review.

Good progress was made on SPC 185.2. This standard could be ready for a final vote at the Chicago Winter Conference in January 2012.

TC 2.9 Program Subcommittee Report: Steve Martin

Sam Guzman, Chair was unavailable. Steve Martin provided the update.

The “UL 1995-Friend or Foe” Forum with Byron Hagan as moderator will be resubmitted for Chicago with a new, gentler title.

The seminar on UV Energy Calculations to be given by Dr. Bill Bahnfleth was a late addition to the schedule in Montreal. However, Bill’s duties as ASHRAE Vice-President did not allow him to present at the scheduled time, so the seminar was postponed until the Chicago Winter Meeting. Sam Guzman will remind ASHRAE staff that the seminar was already accepted for Chicago.

A seminar based on Dr. Kaufman’s work on RP-1509 will also be submitted for presentation in Chicago.

A transactions session by Dr. Kaufman regarding UV degradation may also be possible at the San Antonio Annual Meeting in June 2012. The deadline for technical papers for San Antonio, Texas is September 26, 2011.

TC 2.9 Handbook Subcommittee Report: Steve Martin, Chair

Steve Martin, Jaak Geboers, and Dean Saputa developed a proposal for a new 2013 Fundamentals Handbook chapter, as per the initial TC Handbook plan. The proposal was presented to the ASHRAE Handbook Committee and it was rejected. The Handbook Committee wants us to add all of our additional fundamental information to our Applications chapter that was just published in 2011.

Figure 9 in the new Chapter 60 (page 60.6) of the 2011 Applications Handbook chapter is incorrect. We will not be able to include the correct figure in the print version of the chapter until the next printing in 2015. However, Steve has submitted the correct figure to ASHRAE Handbook editors for inclusion in the online version.

The update to Chapter 16 (Ultraviolet Lamp Systems) for the 2012 printing of the HVAC Systems and Equipment Handbook is due to ASHRAE at the end of July 2011. Katja Auer has gone through the chapter and removed all the information that now appears in our Applications chapter (Chapter 60). Dave Witham has authored a new section based on the results of Dr. Kauffman’s work on RP-1509. Steve Martin will make all final edits and send the chapter our for final TC vote. (Note: **Voting on approval of the updated handbook chapter was conducted by letter ballot from July 25-29, 2011, and was as follows: 9/0/0/2/11 [for/against/abstain/absent/total]. The updated version of Chapter 16 was approved.** Steve Martin submitted the updated chapter to ASHRAE handbook editors on July 29, 2011.)

Steve Martin volunteered to continue as Chair of the Handbook Subcommittee.

TC 2.9 Membership Subcommittee Report: Dean Saputa, Chair

Dean Saputa has worked extremely hard cleaning up the TC roster. It is currently correct for the first time in several years.

Dean showed all attendees the new spreadsheet he developed to track attendance at all TC main committee and subcommittee meetings. The spreadsheet will be useful for making TC membership decisions in the future.

People interested in joining TC 2.9 can find instructions for getting on the TC roster on the ASHRAE website at: <http://ashrae.org/technology/page/1705>.

General Business

Byron Hagan presented an update to the UL1995 meetings that were held in Chicago in May 2011. There are many issues that need to be addressed, and Byron will send an update for material that will be used by the TC 2.9 members who will take part in the UL teleconference on July 13, 2011.

Handbook Liaison Cindy Calloway reported that ASHRAE would like feedback as to what mobile applications members would like being made available to them.

Matt Middlebrooks explained the operation of ISO TC142 WG2 and that Peter Beale has resigned as Convenor and a new Convenor is being sought. Deadline for applications is September 5, 2011.

Richard Vincent announced that Melvin First, a long-time UV researcher from Harvard, recently passed away.

The TC 9.6 Infection Control Group is interested in working with TC 2.9 on common programs and research activities in the future.

No other general business was noted.

Jaak Geboers motioned to adjourn at 12:05pm. The motion was seconded by Gus Faris. The meeting was adjourned.