

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

1791 Tullie Circle, NE / Atlanta, GA 30329
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TECHNICAL COMMITTEE 9.11 MEETING REPORT

**TECHNICAL
COMMITTEE (TC):**

9.11

TC TITLE:

CLEAN SPACES

DATE OF MEETING:

January 26th, 2015

LOCATION:

Chicago

DATE RE-ISSUED:

Approved 6/29/15

RECORDED BY:

Art Giesler

VOTING MEMBERS	YEAR		PRESENT (Y/N)	Sub-committee Chairs	
	On	Off			
Dr. Kishor Khankari, PhD	07/12	06/15	Y	Handbook	Gary Shamsioian
Arthur Giesler	07/14	06/18	Y	Research	Vinod P. Gupta
Gary Shamsioian	07/11	06/15	Y	Programs	Peter B. Gardner
Peter Gardner, PE	07/11	06/15	Y	Web Page	Jo Jo Castro
Vinod Gupta, PE	07/13	06/17	Y	Journal	Michael Amstadt
Dominador De Guzman Castro (JoJo)	07/14	06/18	Y	Design Guide	Wei Sun
Michael Amstadt	07/13	06/17	Y	Short Course	R. Vijayakumar
Roland Charneux	07/14	06/18	Y	Energy Efficiency	Phil Naughton
Kenneth Mead, PhD, PE	07/14	06/18	Y	Art Giesler	Vice-Chair
Matt Middlebrook	07/11	06/15	N		
David Poetker	07/14	06/15	N		
Gordon Sharp	07/12	06/16	Y		
Wei Sun	07/14	06/15	Y		
Mitchell Swann, PE	07/14	06/18	Y		
Ivan Thomas	07/12	06/16	N		
John Varley	07/13	06/15	Y		
R Vijayakumar, PhD	07/14	06/18	Y		
Christopher Weaver	07/14	06/18	N		
Gabriel Jimenez, (Non Quorum)	07/13	06/17	N		

Technical Committee 9.11: Clean Spaces

CORRESPONDING MEMBERS (CM)	PRESENT (Y/N)	CORRESPONDING MEMBERS (CM)	PRESENT (Y/N)
Philip Naughton	Y	Paul Lemestre	Y
Jacob Edmondson	Y	Davor Novosel	Y
William Frantz	Y	Ina Parker	Y
Jose Palma	Y	Julian Rochester	Y
Tim Walsh	Y		

ADDITIONAL ATTENDEES

Zacc Poots Nailor Industries zpoots@nailor.com
 Dan Haas Clarcor Air dhaas@clcari.com

SOCIETY LIAISONS, ETC.

Lynn Werman	TAC Section 9 Head	N
Jeff Gatlin	Section 9 Research Liaison	Y

Meeting Report:

**ASHRAE Annual Meeting
Chicago, Monday, January 26th, 2015**

1. Chairman Kishor Khankari called the meeting to order at 2:15 PM. Fourteen out of eighteen voting members including the chair were present at the start of the meeting. Non-Quorum member not present.

All voting members, corresponding members and guests were self introduced.

Review on voting members as minutes from Seattle show Phil Naughton as voting and Kishor as non-voting. Kishor to verify changes.

2. Minutes:

Wei Sun moved to accept the Seattle meeting minutes as amended. Motion second by Vinod Gupta.

Motion passed (13/0/0 CNV)

2. Sub-committee reports:

- 5.1 **JOURNAL -MICHAEL AMSTADT -**

- Phil Naughton taking lead on article on energy efficiency in cleanrooms. R Vijayakumar, PhD book published “Aerosol Mechanics for the rest of us”.

- 5.2 **WEB PAGE – JO JO CASTRO**

- Each subcommittee chair to send info for Jo Jo to upload

- 5.3 **RESEARCH – VINOD GUPTA, PE**

- Report presented from research subcommittee meeting.
- Mitch Swann RP-1399 Status Update: Project is on track. Contractor obtained access to two biotech companies to measure particles. Contractor is facing challenges gaining access to medical manufacturer’s and blood plasma companies. Three facilities are currently being used with 4 and 5 under discussion. Eight total to be used. Contractor may not be able to obtain access to blood plasma facilities for testing. More data points to be gathered in other areas. No cost change in scope of data points to be requested.
- R. Vijayakumar RP-1604 Status Update: No cost extension to March 2016 to be voted. Construcion of facilities and obtaining of equipment has slowed project down.
- RP-1431 and RP1344 are accessible on the ASHRAE website.

- 5.4 **PROGRAMS : P. GARDNER**

- Two programs in Chicago. Attendance in the 75 – 85 range on Seminar 12 Emerging Technology in Real-time Particle-Microbial Sensing and Demand Flow Control for Cleanrooms.
- Deadline for Atlanta for seminars and workshops is Feb 9, 2015.
- Orlando Conference papers due date is March 23, 2015.
- Committee can do conference papers (multipresenters)
- Orlando will be looking at Clean Build Protocols for projects besides cleanrooms

- 5.5 **HANDBOOK – GARY SHAMSHOIAN**

- Handbook complete for this cycle. Continuous maintenance is available for the electronic handbook.

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5.6 DESIGN GUIDE : WEI SUN

- Section 5 not finished. PubEd will allow us to approve other sections so editing and other work at Society may occur. Finished Sections are to be sent out for review and then to the committee to vote on acceptance.

5.7 SHORT COURSE – R. VIJAYAKUMAR

- Planning to prepare short course for Atlanta. R Vijayakumar, PhD gave short course presentation to Mechanical Contractors Assn. of America in St. Louis.

5.8 ENERGY EFFICIENCY – PHIL NAUGHTON

- Meeting at 4:00 PM today. Sub-committee is preparing white paper (5000 words) with four authors. Draft review planned for Atlanta meeting.

6. Liaison Report

6.1 ISPE – Peter Gardner

- ISPE is publishing sustainability guide for pharmaceutical.

6.2 USP – KEN MEAD

- USP 800 “Hazardous Drugs” Open mic meeting on Feb 20, 2015 2-4 PM EST.

6.3 TC 9.6 Healthcare – KEN MEAD

- RTAR ACH for Infection Control. FGI is interested in possible confounding.

6.4 TC9.10 Laboratory Systems – Kishor Khankari

- Exploring ACH issue in labs. Opportunity for possible joint authorship for RTAT ACH (ventilation effectiveness, dilution, etc.) for literature review with three possible projects for Labs, Healthcare and Clean Spaces.

6.5 TC 7.2 Design Build Contractor and TC7.1 Integrated Building Design – Mitch Swann

- 9.11 should have more collaboration with TC 7.1 and 7.2.
- College of Fellows to have debate about BIM in Atlanta.

7. Old business

None

8. New business

Need names for Vice Chair and Secretary

Mitch Swann moved to accept change in scope for RP-1399 as proposed by the PI to leave number of sites the same and change the distribution of site types. Seconded by Gary Shamshoian. Motions carried 13/0/0 CNV.

Adjournment:

Meeting adjourned at 4:13 PM

Respectfully Submitted,
Art Giesler