

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

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

TECHNICAL COMMITTEE 9.11 MEETING REPORT

TECHNICAL COMMITTEE (TC): 9.11 **TC TITLE:** CLEAN SPACES

DATE OF MEETING: January 20th, 2014 **LOCATION:** New York City

DATE RE-ISSUED: Draft (Rev. 0) **RECORDED BY:** Art Giesler

VOTING MEMBERS	YEAR		PRESENT (Y/N)	Sub-committee Chairs	
	On	Off			
Charlie Shieh	07/10	06/14	N	Handbook	Gary Shamshoian
Pete Gardner	07/11	06/15	Y	Research	Vinod P. Gupta
David Poetker	07/11	06/15	N	Programs	Peter B. Gardner
Wei Sun	07/11	06/15	Y	Web Page	Jo Jo Castro
Matt Middlebrooks	07/11	06/15	Y	Journal	Michael Amstadt
John Varley	07/11	06/15	Y	Design Guide	Wei Sun
Kishor Khankari	07/12	06/14	Y	Short Course	R. Vijayakumar
Paul Lemestre	07/12	06/14	Y	Energy Efficiency	Phil Naughton
Gordon Sharp	07/12	06/16	Y	Art Giesler	Vice-Chair
Ivan Thomas	07/12	06/16	Y		
Gary Shamshoian	07/12	06/17	Y		
Vinod Gupta	07/13	06/17	Y		
Michael Amsstadt	07/13	06/17	Y		
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)
Dennis Ligsay Alejandro		Chris Malanga	
M. Scott Alexander		Norm Maxwell	
Art Giesler	Y	Roderick G McLeod	
Nejat Babur		Susan D Morrison	
Russell T Bailey	Y	Mark A Mueller	
Kimberly A Barker		Christopher O Muller	
Cheryl Baylie		Gredory M Munter	
James R Beasley		Philip J Naughton	Y
David Bess		Eric Z Nejat	
Steve Blaine		Victor A Neuman	
Reg Brown		Sean O'Reilly	
Bernardo Cardenal		Taner F Ozkaynak	
John P Castelvechi		Riyaz A Papar	
Dominador De Guzman Castro Jr.	Y	Sharad V Paranjape	
Robert E Chase		Zivojin B Perisic	
Allan D. Chasey		Kent W Peterson	
Kyung-Ju Choi		David Y.H. Pui	Y
Donald J Clarke		Mark A Renn	
James J Coogan		Christopher S Robertson	
Manuel A Del Valle		Julian Rochester	Y
Low Han Guan Den		Peter H Rumsey	Y
Charles E Dunn Jr.		Vincent A Sakraida	
David S Ensor		Emil Sandru	
Christopher Flaherty		Raymond K Schneider	
William H Frantz		Ted N Schnipper	
Daniel Albert Ghidoni		EC "Chuck" Schroeter	
		Anad K Seth	

Technical Committee 9.11: Clean Spaces

CORRESPONDING MEMBERS (CM)	PRESENT (Y/N)	CORRESPONDING MEMBERS (CM)	PRESENT (Y/N)
Gabriel A Jimenez		Ronald E Hill	
Michael D Jue		Michael Shelton	
Yu-Hao Kang		Charles W Soltis	
Hemant S Kavathekar		Kevin A Sweeney	
Charles F Kern		William Tschudi	
Kevin D Knappmiller		George E Wells, III	
Elizabeth A Kolacki		Philip J Winters	
Thomas H Kuehn		Tengfang Tim Xu	
William A Kumpf		Thomas R Spearman	
D. Randall Lacey		Michael M Starke	
Matthew C Lemieux		Fu-Jen Wand	
Cesar Luis D L Lim		Richard B White	
Zhongping Lin		Alfred W Woody	
Junjie Liu		Mitchel Swann	Y
Dawen Lu		Roland Charneux	Y
Kenneth Mead	Y	Satish Dinakaran	
Davor Novosel	Y	Roger Lautz	
R. Vijayakumar	Y	Farhan Adil Mehboob	
Jack Zarour	Y	Jose F. Palma	Y

ADDITIONAL ATTENDEES

Jake Edmondston
 Selina Yin
 Tim Walsh
 Ina Parker
 Jonathan Kongoletos
 Paolo Tronville
 Dale Witham

SOCIETY LIAISONS, ETC.

Thomas Lawrence	TAC Section 9 Head	N
Kishor Khankari	Section 9 Research Liaison	Y

Meeting Report:

ASHRAE Annual Meeting New York, Monday, January 20th, 2014

1. Chairman Kishor Khankari called the meeting to order at 2:17 PM. Ten out of thirteen voting members including the chair were present.

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

2. **Minutes:**

Wei Sun moved to accept Dallas annual meeting minutes as amended. Correction to Ken Mead name on page 7. seconded by Paul Lemestre.

Motion passed (09/0/0 CNV)

3. **Chair Report:** (Kishor Khankari)

- JoJo Castro now the webmaster.
- New TC subcommittee for Energy Efficiency. Phil Naughton (Chair), R. Vijayakumar and Kishor to start activities and recruit new members.
- RP 1399 Survey of Particles. Agreed on contractor. Recommendation sent to RAC and forwarded to Tech Council for further action.
- Membership 14 voting members. Three rolling off Kishor Khankari, Paul Lemestre and Charlie Shieh. Rolling on Art Giesler, Mitch Swan, Roland Charneux and Phil Naughton.
- Secretary Slot – Committee will be forming a secretary slot in lieu of having the vid-chair taking minutes, etc.
- Web meetings available for sub-committee meetings. Contact Mike Vaughn; mvaughn@ashrae.org

4. **Membership:**

Membership is strong for TC-9.11.

- Rolling off as June 30, 2014
Kishor Khankari
Paul Lemestre
Charlie Shieh
- Rolling on
Art Giesler
Mitch Swann
Roland Charneux
Phil Naughton

5. **Sub-committee reports:**

- 5.1 **HANDBOOK – GARY SHAMSHOIAN**

- Chapter update in progress. Two reviews have been completed. Due date of April 2014 and we are on target.
- Already received some inputs that have been updated:
Figures
More Consistency
Corrections
Color Figures
- Improvement to chapter, not a full re-write

Technical Committee 9.11: Clean Spaces

5.2 JOURNAL – MICHAEL AMSTADT

- Looking for articles on Energy Efficiency in Cleanrooms.
- Wei will prepare an article for the journal on Airlock and Pressurization
- Looking for reviewers

5.3 RESEARCH – VINOD GUPTA

- Dropping three RTAR's
- Need a champion for the other.
- Any possibilities of add-on or extension of current research or possible MIT project.

5.4 WEB PAGE – JO JO CASTRO

- On line per ASHRAE design
- Send info early

5.5 PROGRAMS : P. GARDNER

- Paper or forums due Feb 15, 2014 per the schedule
- Looking at moving subcommittee prior to main meeting.

5.6 DESIGN GUIDE : WEI SUN

- Going out for review and planning on a Letter ballot for approval .Some progress done

5.7 SHORT COURSE – R. VIJAYAKUMAR

- Checking with ASHRAE on offering in schedule

5.8 ENERGY EFFICIENCY – PHIL NAUGHTON

- Planning on scope and literature review.
- 16 people involved
- 14 called-in to the kick-off meeting

6. Liaison Report

6.1 CDC/NIOSH – K. MEAD

Energy Control in nano-tech.

- Standard on nanoparticle in development in Europe

6.2 IEST – Wei Sun

- Conference in San-Antonio May 12-15
- Call for 2 speakers

7. Old business

None

Technical Committee 9.11: Clean Spaces

8. New business

ASHRAE code of ethic to be considered during our meetings

M. JoJo Castro informed the committee of a conference on Building Energy Efficiency in Manilla

Adjournment:

Meeting adjourned

Respectfully Submitted,
Art Giesler