

ASHRAE MTG - ACR
Spring Web Meeting
Thursday, February 21st, 2019
Meeting Minutes

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING
ENGINEERS, INC.
1791 TULLIE CIRCLE, N.E./ATLANTA, GA 30329
404-636-8400

TC/TG/TRG MINUTES COVER SHEET

TC/TG/TRG No	MTG.ACR	DATE	February 21, 2019
TC/TG/TRG TITLE	Multidisciplinary task group on air changes rates		
DATE OF MEETING	February 21 st , 2019	LOCATION	Web Meeting

Members Present	
Kishor Khankari	Chair
Henry Hays	TC-2.2
Michael Baucom	TC-9.2
Roger Lautz	TC-9.6
Jim Coogan	TC-9.10
Ken Mead	NIOSH
Thomas Smith	AIHA
Jose Palma (ALT)	TC 5.3

Members Absent	
Roland Charneux	Vice-chair
Bob Burkhead	TC-2.4
Gaylon Richardson	TC-5.3
Phil Naughton	TC-9.11
Michael Locke	SSPC 170
Daniel Doyle	I2SL

Additional attendance
Travis English
Gary Goodson
Larry Howlett
Nick Agopian
Kevin Gebke
Erich Binder
Clifford Cooper
Carl Huber

DISTRIBUTION

<i>All Members of TC/TG/TRG plus the following:</i>	
TAC Section Head	
TAC Chair	
All Committee Liaisons As Shown On TC/TG/TRG Rosters	
Standards liaison : Manager of Research & Technical Services	
Research liaison	

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1. Call to order 14:10 (EST) and Introduction

Kishor Khankari called the meeting to order and established a quorum with 8 voting plus chair members on 13 voting members. There were 7 members plus 1 alternate and chair.

Kishor reminds every attendee to adhere to the ASHRAE code of ethics.

Meeting started late because of unavailability of ASHRAE staff to initiate GoTo meeting.

2. Approval of the Agenda

The agenda is approved.

3. Approval of Minutes

A motion to approve the September 6th 2018, minutes, proposed by Jim Coogan and seconded by Tom Smith (7-0-0-CNV). Approved.

5. Meeting dates

The next MTG.ACR web meeting will be held in the last week of May 2019.

6. Status of the work statement – Kishor Khankari

WS 1833 – Literature Review for Evidence of the Basis for Specified Air Change Rates (ACR) for Cleanrooms, Laboratories, laboratory animal facilities, and health care facilities with medium to high ACR. RFP is expected to be released spring 2019.

Kishor urged members to reach out to potential bidders

7. Program Update

ASHRAE Annual Meeting Kansas City -TC 9.10: The Art and Science of Reducing Flow to Improve Safety and Stop Wasting Energy in Labs is proposed. Presentations will be given by Kishor Khankari, Tom Smith, and Kevin Gebke.

Need new program ideas for Winter meeting in Orlando. Cliff Cooper suggested program about history of ACH usage. Roger Lautz volunteered to collect the information.

8. Reports from members

Jim Coogan updated on potential bidder for WS1833.

Kishor Khankari presented idea to coordinate MTG.ACR with a new I2SL group on Ventilation Effectiveness for Labs (VEL)

Evening informal meeting in Atlanta had 5-6 attendees; should we do it again in Kansas City? Agreed to do it again and see how it goes.

Report on the Generation Rate forum in Atlanta was presented by Tom Smith. Notes

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available and will be post to MTG.ACR website. Thanks to Joe Zulovich and Phil Naughton for taking notes and helping in conducting the session. Gary Goodson to post notes to website.

9. Fate of MTGs

ASHRAE is proposing to restructure ASHRAE working groups TCs, MTGs, etc. Kishor presented TAC's motivation and proposed plan. TAC proposes new Technical Working Groups (TWGs), merge attendance, and move meetings to afternoon during the conference. Jim Coogan thinks the MTGs are addressing these concerns. Carl Huber added these concerns came up a year ago and MTGs are like a model of what TWGs could be; suggests keeping up our activity to avoid issues.

10. New Research Ideas

Kishor Khankari called for attendees to look for co-sponsors, equipment, money, and other support for the MTG.

Kishor Khankari will send email to see what other resources members may have available.

Revisit research roadmap

- a. Key question is Why this "unit" for airflow specification?
 - i. What is the origin for the ACH "unit"?
 - ii. What is effect of "height"?
 - iii. What is the effect of space volume?
- b. Ken Mead – speculates that ACH goes back to NFPA standards and whole room concentrations; got carried over to other industries
- c. Travis English – has seen ACH used back to the 1860's; some calculations were based on natural ventilation and buoyancy; could be related to simplicity of calculation. At that time spreadsheets were not available.
- d. Cliff Cooper – ACH was used for effective dilution of odors; ACH not appropriate when dilution is the concern.
- e. If we show that height is not relevant to determining proper airflow, what should the "unit" be?
- f. Kishor Khankari -Need study to determine what "units" work for what purpose.
- g. Larry Howlett – ACH rate is what can be determined by measurements in the field (volume and airflow). ACH is easy for code people to verify. Dilution is more difficult to measure and verify.
- h. Tom Smith – ACH can be determined but that isn't what is needed to determine if the airflow is sufficient or effective to control contamination. Need to find a unit that expresses effectiveness and convert that to airflow
- i. Kishor Khankari suggests a need to show industries that ACH may not be appropriate unit for all conditions.
- j. Henry Hays - what is the process load? Can airflow change based on load? Can we use process load based on different applications/industries. For example, labs are different than animal housing.

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Meeting Minutes

- k. Kishor Khankari – even if certain ACH rates are known to work in certain applications, can a different unit be used?
- l. Kishor Khankari – need members to contribute to group progress

11. Presentations

- a. Travis English made presentation on IAQ Ventilation Optimization Project funded by CEC in California.
- b. Roger Lautz – Recently completed ASHRAE research project; substantiate need for each item of Std 170-2013
 - a) Final report will be on ASHRAE website soon
 - b) Asked Roger Lautz to present more at the next meeting

12. No old business

13. No new Business

13. Meeting adjourned at 4:05 pm.