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

# 1791 Tullie Circle, N.E./Atlanta, GA 30329

**404-636-8400**

# 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. 2.2 DATE March 22nd , 2016

TC/TG/MTG/TRG TITLE Plant & Animal Environments

DATE OF MEETING Jan 25th , 2016 LOCATION Orlando FLA

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| MEMBERS PRESENT | YEAR APPTD | MEMBERS ABSENT | YEAR APPTD | EX-OFFICIO MEMBERS AND ADDITIONAL ATTENDANCE |
| Bill Dean Chair VM | 2012 | Xinlei Wang (CM) | 2012 |  |
| Dave Rausch Vice Chair VM | 2013 | Marcus Bianchi CM | 2012 |  |
| Henry Hays VM (e) | 2012 | Rich Gates CM | 1996 |  |
| Joe Zulovich CM (e) | 2007 | Lingying Zhao VM | 2012 |  |
| Morgan Hayes VM(e) | 2014 | Jim Coogan VM | 2012 |  |
| Kristin Schaefer VM | 2013 | Yuanhui Zhang CM | 2011 |  |
| Carol Donovan VM | 2013 |  |  |  |
| Nadia Sabeh CM (e) |  |  |  |  |
| Larry Howlett CM(e) | 2012 |  |  |  |
| Craig Burg |  |  |  |  |

**DISTRIBUTION**

|  |  |
| --- | --- |
| **All Members of TC/TG/MTG/TRG plus the following:** | |
| **TAC Section Head:** | Elbert Phillips |
| **TAC Chair:** | Thomas Lawrence |
| **All Committee Liaisons As Shown On TC/TG/MTG/TRG Rosters**:   * Chapter Technology Transfer Chair * Research Liaison * Professional Development Comm (EDUC) * Handbook Liaison * Standard Liaison * Staff Liaison | Chris Fudge  Pawel Wargocki  Cameron Labunski  Bryan Holcomb  Cyrus Nasseri  Mike Vaughn |
| **Manager Of Standards** | Stephanie Reiniche |
| **Manager Of Research & Technical Services** | Mike Vaughn |

# Call to Order

Meeting called to order at 4:21 EST by Chairman Bill Dean

# Welcome and Introduction / Attendance Sheet

All in attendance introduced themselves and signed in.

Quorum: 5 of 7 voting members in attendance.

1 attended by web meeting. Noted by (e) beside the name on the cover sheet.

# Revise and Accept Agenda

Agenda reviewed.

Motion: to accept the agenda as distributed.

Moved: Bill Dean Seconded: Kristin Schaefer; **Approved 7 – 0 – 0 CNV**

# Approve Minutes from the Previous Meeting

Minutes reviewed, Minor changes in distribution (TAC Section Head) changes were reported. Will be made and posted as required.

Motion: That the June 2015 minutes be adopted as circulated.

Moved: Bill Dean Seconded: Dave Rausch. **Approved 7 – 0 – 0 CNV**

# Report from Section Head

Tom Sobieski did not attend. Announcements will cover the major issues.

# Announcements (Remains for Reference – Similar topics discussed and updated from Jan 2015)

Bill Dean reviewed TAC Updates/Announcements. Discussed the following items;

* There is a new section in the ASHRAE Bio for employment sub-categories that should be completed by all members. This will be used in the future for committee balance.
  + All are asked to update ASAP
* Reviewed Code of Ethics <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>
* The deadlines for program submissions were reviewed.
  + CEC and TAC are looking for feedback on ASHRAE’s Technical program submission process.
  + TC Activity forms are due to section Heads by 1/27 – done
* Seminar and Forum Proposals for St Louis Meeting are due Monday Feb 8th – Carol Donovan to submit.
* Dave Rausch – To update TC 2.2 Website by 5/1
* Dave Rausch – To update and Submit Meeting Minutes by 3/25
* Dave Rausch – To Send Meeting Reminder by 5/22
* Award Submissions need to be in by May 1st Deadline
* RTAR Submissions by May 5/15
* Next ASHRAE Conference – St. Louis – June 25th to June 29th
* 2017 ASHRAE Conference – Las Vegas – Jan 28th to Feb 1st.

# Roster & Status of the committee

The committee remains healthy and the energy level to some of the topics discussed is still there.

The electronic meeting continues to help. One voting member and 4 other Tc 2.2 members used the electronic web this meeting. We still feel this is a progressive alternative for our members that are unable to travel. This continues to allow flexibility in attending. The five voting members at this meeting along with additional committee members and guest attendees totaled 10.

The committee roster was reviewed by Bill Dean. All of the positions were reviewed by those in attendance. Forecasted that 2 will roll off in 2016 (Bill D and Lingying), 2 in 2017 (Kristin and Carol D) and 2 in 2018 (Henry H and Joe Z). Bill will correlate the information and submit the roster changes to ASHRAE HQ in January. – Done

**New Positions after summer meeting in St Louis;**

* Dave Rausch will assume Chair responsibilities after St Louis meeting
* Morgan Hayes will assume VC and secretary responsibilities after St Louis meeting
* Joe Zulovich will assume ALI Coordinator responsibilities after St Louis meeting
* All other management positions remain the same.

# Research Liaison - Pawel Wargocki (Newly assigned this year) - Joined us at this meeting with a few announcements with respect to Research. His role is to support us and help with the RTAR process and Work Statement.

* Please pass any drafts through him – Dave Rausch
* Co-Sponsors (i.e. Other TC’s) or any RTAR is very helpful
* Residential RTAR’s are taking priority
* Current Research Strategic Plan from 2010 to 2015 has been extended to 2018 – Please see the 11 Goals (DSR to distribute) and focus Research toward those goals.
* RTAR submission deadlines for 2016 are 5/15, 8/15 and 12/15
* Committee must vote on RTAR before it goes to RAC – Quorum must be obtained for approval.
* For RTAR’s in general
  + Develop a problem statement
  + Establish support material for problem you are trying to address
  + Any Reference material that could relate to the issue
  + Keep it manageable – Focus on the ASHRAE strategic plan goals
  + If RAC agrees to approve – next step is the Work Statement
* RAC now Allows the writer of the RTAR to be a bidder

# Research – David Rausch

Leadership for each idea has been established. Team decided to finish out Seed storage and submit RTAR and Focus on Energy Use in Ag buildings for next meeting review. Demand Control Ventilation in Vivariums has been put on hold from a research development. However activity will remain in parallel with TC 9.10 on their ACH initiatives currently in review.

1. Seed Storage Conditions: Larry Howlett and David Rausch

Draft RTAR still requires some work. Dave R to review/revise and submit to TC and Research liaison Pawel W for Review and approval in April. Need approval by 5/15 if to be submitted to RAC.

1. Energy Use in Agricultural Buildings: Nadia Sebah, PE to champion

* **Joe Z and Morgan H** offered to put together a program together on this. (See program section below for more detail). Energy use needs to focus on the Production and processing side. Energy use on animal side is only ~2.5%. Big energy consumption is on the grain, support and crop areas. Production vs. processing side needs to be defined for scope development. **(For review at next meeting)**
* Energy use in Ag buildings is not currently covered in the Handbook Chapter.

1. **(On Hold) Demand Control Ventilation in Vivariums:** *(Remains for Reference)* Current Air Changes per Hour (ACH) Rates for live animal vivariums use rule of thumb numbers. There does not appear to be an approved demand based ventilation system in the marketplace. What is acceptable IEQ (air quality & limits) in a vivarium? Is it dependant on the animal type? What are the criteria that effect performance based ventilation for research animal holding facilities?

***Objective:*** What are the air quality parameters that pertain to demand control ventilation for a vivarium? The end goal will be to save energy (money). How would this apply to actual installations? What parameter would be measured, what types of rooms, what types of functions, where are the current requirements? Interested organizations NIH, AAALAS , ALAC, ALAR. What are the issues that designers need to know to design vivarium ventilation systems?

# Handbook – Kristin Schafer, PE

For next meeting Kristin Schafer and Nadia S will identify areas to update in handbook. Nadia has several sections noted that need updating on Plant side. Craig Burg will also chip in and support, also had some noted for updating.

# Program – Carol Donovan

Conference Paper abstracts are due Feb 8th for the St Louis Conference in June. Carol will send out directions. Resubmitted the previous 2 sessions that were rejected due to “overbooked” curriculum. Will see if they are accepted for June.

**For Las Vegas – Winter 2017**

* Joe Z and Morgan H volunteered to work with Carol D and Nadia S on developing a program to submit for Vegas conference, focused on Energy use in Ag buildings.
* Craig Burg and Nadia S will also support the development of a potential Seminar or Workshop on Sensible and Latent energy loads for Plant and Animal buildings.

# Standards

No activity.

# Old business

None

# New Business

It was requested to review our mission, scope, sub scopes and focus – Dave R to propose and develop something for review and discussion at the next meeting in St Louis. Will show current mission as described by ASHRAE and go from there...

# Adjourn

Motion to adjourn at 6:07 by David Rausch. Carried.