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Note: These minutes have been approved at the 2022 Annual meeting in Toronto and are the official, approved record.

TC 9.11 Clean Spaces Committee Meeting Minutes – Las Vegas

Meeting Date: **Monday, January 31, 2022**
Meeting Location: **In-Person (Caesar’s Palace Octavius 9) with Virtual option**
Meeting time: **2:30-4:30 pm PST Main Technical Committee**

0.0 Call to Order

Vince Sakraida/Vice Chair called the meeting to order.

TC9.11 Scope: TC 9.11 is concerned with air conditioning systems for cleanrooms and spaces, including process, product and facility air conditioning and related process ventilation for Research and Development, manufacturing, assembly, test and clean medical areas. This includes electronic, microelectronic, pharmaceutical and aerospace facilities and operating rooms.

ASHRAE Code of Ethics Commitment

The ASHRAE Code of Ethics is to be adhered to by those doing ASHRAE business whether or not they are an ASHRAE member. “In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, integrity and respect for others, and we shall avoid all real or perceived conflicts of interests.” See full ASHRAE Code of Ethics: <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>

1.0 Introduction of Attendees: (see full list attached at the end of minutes)

1.1 Roll Call of Voting Member

Vince Sakraida – TC 9.11 Vice Chairman presided at this meeting.

Vince led the introductions of all attendees. Attached is the list of all attendees and their membership status.

VOTING MEMBERS FOR THIS MEETING (Need (4) or ½+1 for a Quorum)

| Voting Member | Roll-on Date | Roll-off Date |
|--------------------------------------|--------------|---------------|
| Russ Bailey (absent) | 7/1/2019 | 6/30/2023 |
| Phil Naughton | 7/1/2019 | 6/30/2023 |
| Gordon Sharp | 7/1/2019 | 6/30/2023 |
| Ivan Thomas | 7/1/2019 | 6/30/2023 |
| Yusuf Bhetasiwala | 7/1/2019 | 6/30/2023 |
| Sama Fakhimi (Not present, resigned) | 7/1/2021 | 6/30/2025 |
| Roland Charneux | 7/1/2021 | 6/30/2025 |

1.2 George Wells – TC 9.11 Secretary led the Roll Call of Voting Members. Based on the official Roster, there were five confirmed voting members present (online or in person) and two were not able to attend. Vince Sakraida confirmed TC 9.11 had a Quorum.

2.0 Vince Sakraida shared that written minutes of the previous meeting are not available.

Brad Cochran – TC 9 Section Head informed the TC 9.11 of three new liaison positions that need to be made. ASHRAE has added additional Functional Groups requesting TC 9.11 liaison involvement, such as the Building Decarbonization Task Force. He also discussed the ASHRAE thrust to get more involvement from YEA members.

3.0 Sub-Committee Reports

3.1 Research:

RP-1604: Prior to the meeting, a letter ballot motion was made by the Chair and approved. The letter motion was read at the Meeting as follows: “TC 9.11 advises RAC to accept the PMS’ recommendation to terminate RP 1604 as incomplete immediately and require the PI to stop all testing and data acquisition, compile all collected data to date and submit all data with a draft report to date to ASHRAE.” The letter motion and approval was forward to RAC.

A motion was made by the Research Subcommittee Chair to the TC and it was withdrawn.

A motion was made by the RAC liaison as follows: “TC 9.11 advises RAC to accept the PMS’ recommendation to terminate RP 1604 as immediately and require the PI to stop all testing and data acquisition. The PI shall compile all collected data to date and submit all data with a draft report before April 30, 2022 to the PMS for approval and then to TC 9.11 for approval“. This motion was approved 5-0-0.

RTAR’s: Proposed RTAR’s are as follows:

1. Energy Benchmark Survey for Pharmaceutical Clean Spaces. RTAR had been previously approved by the TC but revisions to the RTAR will require a new TC vote.

2. Study of Ventilation Effectiveness Indices of various Air Distribution strategies in Contamination Control & Energy Efficiency for Nonunidirectional Airflow Cleanrooms ». RTAR in draft stage, Yusuf B. is leading the RTAR development for this item. Final RTAR to be voted via email ballot

3.2 Programs: Roland Charneux

Toronto Annual Conference Programs

Forum – How do we move design basis away from air change rate basis? Phil and Vince will finalize the Forum title with input from Conor Murray.

Phil volunteered to be the Forum Chairman.

Possible Seminar – Chris Muller informed Roland Charneux and the TC, that he will get two or three speakers with presentation slides complete on or before the February 17, 2022 submission deadline.

3.3 Wei Sun – Handbook Sub-Committee Chairman: TC-approved edits are due by 7/12/2022.

3.4 Journal: No Report.

3.5 Web page: Sina Yousefi has volunteered to be webmaster and is awaiting ASHRAE to do the roster change so he has webpage access. Sina and Russ have requested an early change.

There is a link on the web site <https://www.ashrae.org/communities/committees/technical-committees> to become a Corresponding Member.

3.6 Phil Naughton – Energy Efficiency Sub-Committee Chairman

Energy Efficiency Sub-Committee Virtual Meeting wasn't held. A Virtual Energy Efficiency Sub-Committee Meeting is scheduled to be on February 23, 2022 at 9:00AM.

4.0 Membership Status changes were discussed by Vince Sakraida.

George Wells was accepted as Secretary – Provisional Non Voting Member of TC 9.11.

The recommendation for TC 9.11, is for the Chair to use discernment and add more Voting Members to the ASHRAE TC 9.11 Roster.

5.0 Liaison Reports

5.1 ISO 14644 – Phil Naughton has been a US TAG Member to ISO TC 209. Phil informed the TC that he was stepping down from the position. Vincent Sakraida has said he will be interested in becoming new member to the US TAG, others are to let Russ Bailey know if they are interested.

5.2 IEST/ISO: No Report.

5.3 ISPE – Gary Shamshoian is Liaison and Gary and Conor Murray provided an update on ISPE activities

ISPE is working on Energy Efficiency Concepts. This is an opportunity for ASHRAE

TC 9.11 to join forces with ISPE in order to develop an optimal path forward.

5.4 CDC/NIOSH No Report

5.5/6 TC 1.6 and 9.6 - R. Lautz Liaison wasn't in attendance. No report.

5.8 TC 9.10 – No Liaison defined and no report.

5.14 NEBB – Vince Sakraida Liaison – No Report.

5.15 Epidemic Task Force - M. Amstadt/ V. Sakraida Liaisons – No new announcements to report. Task Force has completed most if not all open action items.

5.9 MTG ACR had a Forum this week. They are seeking co-funding opportunities. Phil Naughton is the Liaison and he gave an update on RP-1803, *Literature Search on the Scientific Basis of ACR in Cleanrooms, Healthcare, Laboratories and Animal Laboratories*. Phil also discussed new RTAR 1936 on Ventilation Effectiveness. RTAR 1936 was approved by Research Advisory Council (RAC). Phil agreed to author a Work Statement for this item. This RTAR is by MTG ACR and is not sponsored by TC 9.11.

5.11 TC 7.1 (Integrated Building Design) - Mitch Swann Liaison

5.12 TC 7.2 (HVAC&R Construction & Design Build Technologies) – Mitch Swann Liaison, Proposed study of the pros and cons of In-House Engineering versus External Hired Engineering Firm.

6.0 Old Business - None

7.0 New Business

7.1 YEA Membership – Vince Sakraida shared the ASHRAE drive to get more involvement from YEA members, and discussion followed.

8.0 Future Meetings

8.1 A Virtual Energy Efficiency Sub-Committee Meeting is scheduled to be on February 23, 2022 at 9:00 AM. – Phil Naughton

8.2 Toronto Meeting – June 25 through 29th - Vince Sakraida informed us of the plan to have the Main TC 9.11 Technical Committee Meeting on Monday, June 27, 2022. This will be in person and virtual starting at 2 :30 PM until 4 :30 PM.

Meeting was adjourned by Mr. Sakraida