

ASHRAE TC8.7 Variable Refrigerant Flow Committee
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Monday June 25th 2018, 4:15 pm–6:30 pm
Location: Houston, TX/Venue: George R Brown Convention Centre
Room: 372AD – 3rd Floor

1. **Call to Order**

Meeting called to order by Chairman Thur De Koos

2. **Welcome/Introductions**

Chairman Thur De Koos welcomed all attendees and extended a special welcome to YEA engineers. Chairman requested to review the membership roster to verify all details and membership status.

3. **Minutes Approval**, Chicago Winter Conference, Jan 2018

Draft minutes were sent out to the committee members on May 18. Minutes were unanimously approved at this meeting.

4. **Agenda Review/Updates**

No changes were made to the agenda during this meeting.

5. **Chair's Comments**

Chairman Thur De Koos provided a report from the Chairman's breakfast meeting:

Hi-tower service nominations are due on September 1, 2018. Please reach out to Chairman Thur De Koos for more information on these nominations. Some TCs may be improperly using the ASHRAE letterhead. Additional information can be acquired from Chairman Thur De Koos on the proper usage of the letterhead. The MOP has been restructured and is available on the ASHRAE website. A training in St. Louis will be held on Tuesday, June 26 on ASHRAE research procedures. There is also a training session on SWOT for TCs being held in future. Chairman Thur De Koos will put additional notes together and share with the committee members after this meeting.

6. **Subcommittee Reports**

6.1 Handbook Chapter

Handbook Chairman Mohan stated that it's that time again to review and revise chapter 18 of the ASHRAE handbook. Anyone who is interested in participating in the handbook subcommittee, please reach out to Richie Mohan. The intention is to have a presentable draft ready by 2019 ASHRAE summer conference.

6.2 Membership

The current membership includes: 63 CM, 22 PCMs, and 8 VMs. There is some discrepancy with the membership and the TC officers are currently looking into this.

6.3 Programs

Bill Artis shared an email with all program updates on June 25, 2018 via email. No programs were directly sponsored by this committee.

Past individual programs include: VRF codes and standards. 180 people attended and was very well received.

If anyone would like to submit a program, please reach out to Bill Artis. Application deadline for ASHRAE winter conference: August 3, 2018.

Proposed topics for future programs consideration: introducing ASHRAE Guideline 41, better use and application of VRF equipment, Sizing VRF equipment.

Couple of tabled suggestions: controls strategy, water-cooled applications for VRF systems.

Dermot McMorro mentioned that based on recent stats, the odds for approval of programs and seminars are high. Therefore, it is strongly suggested that the committee members engage in as many new programs and seminars as possible.

6.4 Research

One potential item for consideration: RTAR for equipment lifecycle cost for VRF systems. Richie and Chris (MEUS) volunteered to work on this research topic.

It was also suggested to do a joint effort between AHRI Ductless Equipment product section and ASHRAE TC 8.7 to explore a research project on the impact of economizers on VRF equipment.

6.5 Standards

Update was provided on:

GPC-41: APR comment deadline ended on 6/25. Several comments were received and the GPC is currently going through these comments.

AHRI 1230: AHRI draft 1230 is currently under review by the Ductless EC TC. Once revised, it will be resubmitted to DOE prior to the start of the ASRAC negotiations on VRF test procedure and energy efficiency standards.

CSC 656: It was suggested to reach out to Charlie Stephens to provide an overview of this standard in Atlanta, GA, ASHRAE conference meeting.

6.6 ALI

Chris Williams will be reaching out to the ALI staff to get all topics that are currently active under ALI. A couple of sessions were conducted under ALI in where VRF systems have been negatively called out. Therefore, it was suggested for members of this committee to audit these

ALI sessions to ensure that VRF systems are accurately presented in these sessions. Brian Bogdan volunteered to be an auditor.

Some of the past topics covered are:

Intro to VRF equipment.

Design and applications of VRF systems.

7. Webmaster

Arturo will be rolling off this position and rolling on as the TC 8.7 chair. Therefore, anyone interested to be the webmaster, please reach out the TC 8.7 officers after this meeting.

8. **Liaison Reports**

8.1 Liaison to ASHRAE 90.1

There have been 28 motions, with 2 withdrawn, and 4 that did not pass. One proposal that directly impacts TC 8.7 is the effort to restructure the minimum efficiency tables in ASHRAE 90.1. There is no expected change to the values of the minimum efficiencies.

8.2 Liaison to ASHRAE 62.1

Anyone interested in getting involved in this subcommittee, reach out to Paul Doppel. A guideline with more stringent requirements has gone out for APR.

ASHRAE 52.2 has started looking at an ISO standard 16890. Instead of MERV, the standard looks at the particulate matter threshold.

There is a push for MERV 8 for all systems which can have a major impact all HVAC systems, including VRF.

8.3 Liaison to TC 205

Industry is working with DOE and CEC to develop industry-based performance curves that will facilitate performance modeling and simulation. Until these performance curves are developed, the efforts on ASHRAE 205P is paused as these performance modeling effort will help build the contents for ASHRAE 205P.

8.4 Liaison to Guideline 41

Comments are due on GPC-41 by midnight on June 25, 2018. Several comments were received and have been reviewed by the GPC-41 subcommittee. After vetting through all of these comments, the GPC-41 will be further modified and then released for a PPR.

8.5 Liaison to ASHRAE 189.1

Addendum published on VRF efficiency tables. Based on CEE and 90.1-2016 tables. The technical content of the ASHRAE 189.1 will be transferred to IGCC in the near future based on an MOU signed between ASHRAE and ICC.

8.6 Liaison to ASHRAE 15

Dennis (Ingersoll Rand) has rolled off as the ASHRAE 15 chair and Rusty Tharp has rolled on as the new chair. Addendum H undergone 2 public reviews and a third public review has been approved.

Currently reviewing the concept of connected spaces in ASHRAE 15 and how it ties up with VRF equipment.

New working groups on refrigerant piping and commercial and industrial applications. ASHRAE 15 is looking at an editorial rewrite of the standard for better readability.

ASHRAE 15.2 APR closed earlier this week. The committee will meet on 6/26 to review the submitted comments. Jim Vershaw is the new chair of ASHRAE 15.2.

9. **Old Business**

Hi-tower award application deadline: September 1st. ASHRAE TC 8.7 has recommended an individual from this committee.

There is a survey on SWOT analysis for all ASHRAE TCs. Anyone interested can reach out to Chairman Thur De Koos for to get access to this survey.

Dermot McMorroo sought for interest from the committee on building a vision and set of objectives specifically for this committee. Anyone interested, please reach out to Chairman Thur De Koos.

Steve Ferguson will be the point of contact between ASHRAE and DoD on all DoD matters.

10. **New Business**

11. **Adjournment**