



Technical Committee 8.01 – Positive Displacement Compressors
AGENDA – Chicago Winter Meeting
Tuesday, January 23, 3:30 – 6:00 PM
Palmer House, Montrose 3

1) Call to Order – Margaret Mathison (Chair)

- Establishment of Quorum (Jim Douglas – Membership Chair)
- Motion for Approval of the Long Beach Minutes
- Report on TC/TG Section 8 Breakfast Meeting (Margaret Mathison)

2) ASHRAE Code of Ethics Commitment – Margaret Mathison (Chair)

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 Code of Ethics: <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>.)

3) Liaison Reports

4) Standards – Jim Douglas

TC 8.01 is the cognizant or co-cognizant technical committee for four separate ASHRAE standards:

- SPC 23.1-2010R, “Methods of Testing For Rating the Performance of Positive Displacement Refrigerant Compressors and Condensing Units that Operate at Subcritical Temperatures of the Refrigerant.” Standard 23.1 has finished the public review process for the independent substantive change (ISC) package, which addressed material inadvertently omitted for the original review draft.
- SPC 23.2P, “Methods of Test For Performance Rating Positive Displacement Refrigerant Compressors That Operate at Supercritical Temperatures of the Refrigerant.” Scott MacBain is the chair of this committee, which will meet for the first time in Chicago. New members and guests are always welcomed.
- Standard 41.9-2010, “Standard Methods for Refrigerant Mass Flow Measurement Using Calorimeters.” The first publication public review draft has been prepared and SSPC 41 will vote to approve the draft for public review.
- Standard 41.10-2013, “Standard Methods for Refrigerant Mass Flow Measurement Using Flowmeters.” John Neel is the chair of this revision committee and revision work is progressing. New members and guests are always welcomed.

In addition, Erik Anderson is the chair of the revision committee for Standard 41.1-2013, “Standard Methods for Temperature Measurement.” The revision work is progressing and new members are always welcome.

5) Program Subcommittee – Erik Anderson (Chair)

- TC 8.1 sponsored a seminar, “Impact of Regulatory and Market Trends on Compressor and System Design,” on Sunday

- Seminars topics proposed for future conferences:
 - Oil circulation rate, reliability testing and performance testing (for annual meeting)
 - To be chaired by Craig Bradshaw
 - Multi-stage compressors
 - To be chaired by Andrew Welch
 - Positive Displacement Compressors – Back to Basics
 - To be chaired by Rick Heiden or Greg Chilcote
 - To include presentations on state of the art (compression types), testing of positive displacement compressors, and updates to Standard 23.1 (handling economization)
- Share any additional program ideas with Erik

6) Research Subcommittee – Craig Bradshaw (Chair)

- Please bring any suggestions for new RTARs or improvements to the RTAR process to Craig Bradshaw
- If you have ideas or an interest in the research subcommittee, please contact Craig Bradshaw or attend the subcommittee meeting in future meetings.
- RTAR 1793 was accepted for motor cooling research / thermal conductivity (co-sponsored with TC 8.2). Contact Rick Heiden if interested in participating in PESC and/or PMSC
- TC 8.1 voted to co-sponsor a TC 3.4 research proposal on “foamability properties of LGWP refrigerant and oil mixtures.” Contact Chris Seeton if you would like to participate further in these research tasks.

7) Handbook – Alex Leyderman (Chair)

- All of the handbook chapters are current.
- Please begin gathering updated information (charts, sketches/pictures, performance information, etc.) for the next revision of the positive displacement compressors chapter. All subsections will require updates based on new development/research. Volunteers are needed for the following topics:
 - Over- and under-compression
 - Valve losses
 - Compressors with economizer ports
 - Typical design features of reciprocating compressors (Table 1) revised for new/alternative refrigerants
 - Updating performance curves for new refrigerants:
 - Fig. 10 Capacity and Power-Input Curves
 - Fig. 14 Performance Curves for Typical Rolling-Piston Compressor
 - Fig. 28 Typical Open-Compressor Performance
- Also, volunteers are needed to help revise the section on scroll chillers for the liquid-chilling systems chapter (chapter 43).

8) Membership – Jim Douglas (Chair)

9) Website – Greg Chilcote (Chair)

10) Old Business

11) New Business

12) Motion To Adjourn