**SDC 301 CALCULATIONS SC Call Draft Minutes**

September 12, 2022 | 1:00 PM – 2:30 PM Eastern

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**Members Present:** **Dave Roberts (Chair), Brian Christensen, Gayathri Vijaykumar,** Nick **Sisler, Philip Fairey**, Scott Horowitz, William Ranson **Rob Salcido**, **Charlie Haack**, **Neal Kruis (guest)**

**Members Absent:**  Charlie Haack

**RESNET Staff Present: Laurel Elam, Christine Do**

**Minutes Prepared By:** Clara Hedrick

Meeting called to order at 1:03 PM Eastern.

**Approve Agenda**

Brian Christensen made a motion to approve the agenda as amended. Scott Horowitz seconded. The motion passed without objection.

**Approve Meeting Minutes from August 1, 2022**

**Brian** made a motion to approve the meeting minutes from August 1, 2022. Rob Salcido seconded. The motion passed.

**IR 301-2022-001 Prorating Shared DHW Equipment Tank Losses**

Brian reviewed his interpretation proposal. Intention is to correctly implement note T of table 4.2.2(1), the group agreed to accept this interpretation. Change proposed interpretation language to reflect this intention.

SDC moved to add a comment to add this language find its way into Addendum C.

Gayathri motioned to approve this, Brian Christensen seconded. Motion passed.

**IR 301-2022-002 Clarifications to Commercial DHW Efficiency**

Dave suggested creating a working group to work through this item instead of the entire subcommittee. Group decided to review it, and then allow Brian to revisit the document and make changes as needed.

**First Issue:**

This is attempting to resolve changes to both 301-19 and 301-2022. Commercial heat pumps do not use the metrics stated in 301 in efficiency calculations.

**Second issue:**

The standard should include or be clear on whether UEF is a valid MEPR for these calculations. In conversions from UEF, there are inconsistencies in results.

**Third Issue:**

In 301, parameters to determine Thermal Efficiency and SL are not defined. Commercial water heaters should have a UEF that can be used to determine ERI. The current calculation used to do this has inherent issues, including factoring in multi-family heaters.

Issue 3(a): How do both approaches compare?

Issue 3(b) Does SDC 301 feel like either of these are still useable and accurate?

Volume, input, and fuel type all play parts in the inconsistencies present in current accepted calculation methods as outlined in 301.

The blue columns in this table outline the discrepancies. Updating this spreadsheet would be independent of the standard, though the calculations used to achieve this data is from the standard.

EF calculations were first determined in 2004. EF is no longer used in official ratings.

**Fourth Issue:**

Note t of 4.2.2 (1) requires applying different adjustment factors. Commercial water heaters are rated using TE and standby laws, or COP. Should these have to follow the same adjustment factors? What adjustment factors should be used in conversion to UEF to EF?

Scott: The performance adjustment in all water heaters is 8% draw rate. This rate should be the same for commercial as well as non-commercial.

DOE classification of this equipment did state instantaneous, but was changed to tankless.

Summary:

* #1 Is the COE metric acceptable for water heater calculations?
* Philip may be a good resource to address #1
* #2 similar issues as above
* #4
  + Should any water heater (tankless or small tank) use the multipliers Brian provided? Multiplier changes depending on how it was originally rated.
    - an EF rating be multiplied by 0.92, or
    - a UEF rating be multiplied by 0.94

Dave Roberts suggested a working group to propose a different path forward regarding what metrics the standard currently accepts, and what to do with them in place of the spreadsheet.

In the table, there is a 5% difference in the rated and measured inputs.

Brian volunteered to chair the working group to address these items. Jeff McGuire would be a good addition to this group, Dave will connect Brian and Jeff. Philip Fairey and Scott Horowitz will also be invited to participate.

**Finalizing 301-2022 Addendum C**

SCC will be invited to a calcs call to discuss changes to Addendum C.

Neal is working on changes proposed in SCC. In October meeting, these two committees can draft a proposal for changes added to Addendum C. This should be ready to review by next Calcs call or even a week before so Dave can distribute.

Neal is compiling all changes from other SCC subcommittees for SMB and SDC to review in the next few weeks.

An NWI is being amended to include/reference new changes.

Rick suggested the next Calcs call be postponed a week (October 10th) to allow for enough time to prepare all the above items, the group agreed.

Christine will update the SCC with changed October meeting.

**ACTION ITEMS:**

1. Dave Roberts to form working group to address Brian’s proposed interpretation. Members include:

Scott Horowitz

Brian Christensen

Philip Fairey

Jeff McGuire

1. Dave to update October meeting invite to October 10th.
2. Christine to update SCC meeting invite to October 10th.

**Meeting adjourned at 2:04 ET**