**SDC 301 CALCULATIONS SC Call Draft Minutes**

November 4th, 2024 | 1:00 PM – 2:30 PM Eastern

[***MEETING RECORDING HERE***](https://transcripts.gotomeeting.com/#/s/4e63000c318235ddb4e6bff4d39193f91387ac2cee6f25640f2f9a2b5786b0db)

**Members Present:**  Robby Schwarz, Brian Christensen, Nick Sisler, Philip Fairey, Gayathri Vijayakumar, Rob Salcido, Paul Kintner, Neal Kruis, Charlie Haack, William Ranson

**Others present:** Richard Porter, Bob Sullivan

**Absent:**  Scott Horowitz

**RESNET Staff Present:** Jackie Diaz, Clara Hedrick, Rick Dixon, Laurel Elam

**Minutes Prepared By:** Jackie Diaz, Clara Hedrick

**Approve agenda**

Brian Christensen motioned to approve the agenda. Gayathri Vijayakumar seconded. Agenda was approved.

**Approve 10/07 meeting minutes (**[**here**](https://urldefense.proofpoint.com/v2/url?u=https-3A__www.dropbox.com_scl_fi_9tlgfc4fmlfiyvoodilki_SDC-2D301-2DCALCULATIONS-2DSC-2DCall-2DDraft-2DMinutes-2D10-2D7-2D24.docx-3Frlkey-3Dt4ig3cj3i0csjmrdtbaee4lxt-26st-3Dp8a32d01-26dl-3D0&d=DwMDaQ&c=euGZstcaTDllvimEN8b7jXrwqOf-v5A_CdpgnVfiiMM&r=JnhbwqPwQqN2Joz-qNtDyw&m=ytoYElZ67scO4TcbfAAJHBsTFqNNf-bliOw9RIyWFUbf1hzoapW3XvBySeTBe9AE&s=RTdvZuu42Vxr7QjuXWI6uq5dQmWzpAcbNyI6vT_JXRw&e=)**)**

Brian Christensen motioned to approve the draft meeting minutes as amended. Gayathri Vijayakumar seconded. Draft meeting minutes were approved by voice vote.

Update on MINHERS Addendum 76 on 301-2022 VCD and MCD (Rick/Philip)

Rick Dixon provided an update on this project, noting the voluntary compliance date as January 1, 2025, and the mandatory compliance date as July 1, 2025.

Rick also explained the approval process by the SMB and outlined the possibility that feedback received during public comment may change the compliance dates.

IR 301-2022-004 CMU Insulation & Grading (see attached file)

Gayathri introduced the request for an interpretation concerning CMU insulation grading. The current RESNET standard does not address core-filled CMU which prevents them from achieving Grade I. It was also typical that installing different insulation, such as boards, around the CMU could be Rated as a Grade I since it was able to be visually inspected.

Richard Porter explained that insulating concrete block (CMU) walls by filling cores with foam insulation is a long-standing practice, especially in Florida, where homes are constructed with concrete block to meet wind-resistance standards. He highlighted that many of these homes have historically achieved ENERGY STAR certification using this insulation method alone. Foam insulation is injected into the cores of CMU walls, fully filling the wall cavity. Inspections traditionally verify insulation integrity by checking for visible signs, like small “pigtails” of foam around openings, ensuring the foam has filled all interior spaces.

Richard noted that a recent interpretation by Dean Gamble subsequently resulted in core-filled CMUs becoming ineligible for Grade I insulation status under the current RESNET standard. This interpretation was based on the lack of an explicit inspection protocol for CMUs, meaning they automatically default to Grade III.

He explained that this change has caused considerable concern across the industry. Insulation contractors and builders are accustomed to meeting ENERGY STAR requirements with core-filled CMUs, and this reinterpretation now jeopardizes their ability to achieve ENERGY STAR rebates unless they can attain Grade I.

Builders find few affordable insulation alternatives to meet Grade I standards for CMUs without significantly increasing construction costs. These alternatives would likely drive up prices, potentially exceeding the savings provided by the ENERGY STAR rebate, which could discourage builders from pursuing ENERGY STAR certification altogether. The shift to Grade III Rating for foam-filled CMUs means there now is no straightforward path to Grade I for CMUs without a revised or new protocol in place.

To address these challenges, Richard requested the subcommittee consider a MINHERS addendum or interim amendment to allow site-insulated CMUs the same Grade I eligibility that factory-pre-insulated walls have. He proposed establishing a specific inspection protocol for foam-filled CMUs, such as drilling inspection ports in the wall to verify foam coverage and density. ASTM testing standards already met by pre-insulated panels could be applied to site-insulated CMUs to verify they meet the same Grade I criteria. This could provide a practical inspection method, enabling Raters to confirm insulation quality without major disruptions.

Gayathri offered additional context on the standards and implications. She explained that, under RESNET’s ANSI standard, there is currently no requirement for homes to achieve Grade I insulation. However, the ENERGY STAR program does require homes to meet Grade I for certification.

Rob asked, if the CMUs did not reach grade I how did they get ENERGY STAR certified?

Gayathri clarified that it was an inconsistency in interpretation of the current standards by the raters, which caused the original request for interpretation to be submitted.

It was mentioned that there has been some legal fallout due to this misinterpretation, which could have been the catalyst for the request being submitted.

Brian Christensen mentioned that the current standard lacks a way to manage the issue addressed in the interpretation request. The ENERGY STAR program should be able to provide a temporary solution, while a long-term protocol is developed for RESNET ANSI Standard 301.

Rick explained that interpretations cannot add or remove requirements; they should only interpret existing standards. Any changes must be be made through an addendum.

Philip called for a motion to move the subcommittee’s response to SDC 300, then continue additional discussion on an interim standard for CMU inspection.

**Brian Christensen made a motion to recommend this proposed response as drafted by Gayathri to IR 301-2022-004 to SDC 300. Rob Salcido seconded. Motion passed via voice vote.**

Phillip invited the committee to discuss how to move forward with means of inspecting core foam-filled CMUs

Brian wants to restrict the conversation to CMUs with future considerations for 3D-printed structures.

Robby Schwarz and Charlie Haack were invited to discuss their working group’s progress on revising Appendix A and creating procedures for various insulation types.

Robby explained efforts to categorize insulation types and develop inspection procedures, mentioning ongoing work on non-visual and remote inspection options.

Richard Porter explained the reason for the interpretation request was to try and find some sort of exemption that would allow the industry to keep operating as it was before and noted industry reliance on ENERGY STAR certification, which mandates Grade I protocol for rebate eligibility.

Gayathri clarified that the legislation does not specifically mandate Grade I; instead, it mandates ENERGY STAR certification, which inherently includes Grade I requirements as determined by the EPA. For this reason, it’s advised that any changes to CMU grading standards must come through either an interim addendum

Gayathri suggested the best course of action would be for Richard and his team to propose an interim addendum as quickly as possible, which could provide immediate relief by establishing a visual inspection method that raters could use for core-filled CMUs.

Rick clarified that an interim addendum bypasses the typical public review, expediting its implementation until it is replaced by a formal amendment.

**Update on MINHERS Addendum 77 on iHPWH (Gayathri - attached file)**

Gayathri has put together a version of the document for the group to review which includes the feedback/track changes from Brian and Scott from the last meeting.

Brian detailed revisions made to some definitions, emphasizing the importance of integrating hybrid aspects with integrated heat pump water heaters, clarifying that these include both electric resistance and heat pump elements.

Note “U” in the document now includes UEF as part of the options for commercial hot water equipment since some are rated using UEF.

Made some changes to the new table note language, to include any heat pump water heater, not just hybrid models. Also added language to clarify heat pump compressor COP vs. Electric resistance.

Footnote ‘ac’ restricts the language to just hybrid since that’s what is tested.

Later in the same footnote, added clarification that this would not apply to a split system. and added clarification for the subscripts on the COP.

Philip acknowledged the improvements made to the subscripts and confirmed they aligned with the intended meaning.

Nick pointed out a potential inconsistency between the volumes stated in the equations and suggested they should be the same.

Philip explained the rationale behind using different reference volumes for calculations and clarified how the mathematical approach accommodated the adjustments made.

Nick made a suggestion to include "cubic feet" in the definition of relative volume for clarity. Edits made in both numerators and denominators.

Brian suggested they might want to start reviewing the minimum-rated feature table. explained that a key change made was to specify that both containment volume and net-free opening area are required, rather than optional (not "or" but "and"). This was to address the uncertainty in which measurement raters would need to rely on until more information is collected.

Brian explained that the same change was made in appendix B, replacing "or" with "or," ensuring that both volume and net-free opening area would be collected in assessments.

Gayathri mentioned a point brought up regarding the difficulty in calculating the net-free opening area. shared that a suggestion was made to create a default value to simplify calculations, noting that CA has been using a 35% net default of the area of a grille or louvered opening when no manufacturer specification was available.

Gayathri is looking for a recommendation to move this addendum to SDC 300.

**Nick Sisler motioned to move draft Addendum 77 forward to SDC 300 for review and approval. Brian Christensen seconded. Motion passed by voice vote.**

**Update on MINHERS Addendum 82 on Heat Pump software criteria (Neal Kruis)**

Neal explained that the draft included clarifications following Brian's comments about the differences between the AHRI directory and certificate, noting that the directory contains more information than the certificate.

Neal sent a draft to Rick for balloting, Rick confirmed that it had not yet been sent out for ballot.

Neal stated he had cleaned up all track changes and comments in the draft, noting that the changes were mostly minor updates regarding sourcing information. Another important change based on Brian's feedback, which was the necessity of knowing the compressor's staging strategy. He explained that this information is not provided on the AHRI certificate, making it challenging for raters to determine if the system is single-stage, two-stage, or variable capacity. the implications of this lack of information, it may lead to assumptions about variable capacity systems being less efficient compared to single-stage systems. Explained that while variable capacity systems tend to offer higher SEER ratings, there are ranges where single-stage systems may also perform well, and he suggested that default assumptions could be made conservatively based on SEER levels.

**Gayathri Vijayakumar motioned that MINHERS Addendum 82 be moved forward to SDC300 for review and approval. Brian Christensen seconded. Motion passed by a voice vote.**

**New business**

There was no new business.

Meeting Adjourned at 2:10 PM ET