**Draft RESNET SDC300 Minutes**

**11/19/2024 1:00 – 2:00 PM ET**

[**https://zoom.us/j/91574583838**](https://urldefense.proofpoint.com/v2/url?u=https-3A__zoom.us_j_91574583838&d=DwMFAg&c=euGZstcaTDllvimEN8b7jXrwqOf-v5A_CdpgnVfiiMM&r=7XUwxAZbmftOVV1BsRddTg&m=DnVnE5bMlCexLf2AzmCgje0igo8bsXbjtsMTUUU4I_jlvFbArssJCNpUubZgqEJu&s=glbZvcDtiOHkBYixrmyRI1S3HztCmYleeTBcWz8_7u8&e=)

[**MEETING RECORDING HERE**](https://zoom.us/rec/share/wjG27VnElRhkCznl5Cj1IiBBaGR61dUjQY1naKxjBZBGn35tzFxLFZQm_H3qTsAD.f2b6fzoF1PmpT5OT?startTime=1732039206000)

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| --- | --- | --- | --- |
| **Members & Staff**  | **Present**  | **Absent**  | **Other Attendees**  |
| **SDC 300 Members** Thiel Butner Terry Clausing Philip Fairey Ian Finlayson Dean Gamble Charlie Haack Edwin HensleyKelly Parker Rob SalcidoBrian Shanks Jason Toves Robby SchwarzJosh Spence Gayathri Vijayakumar   **RESNET STAFF** Rick Dixon Laurel Elam Clara HedrickNoah Kibbe | **SDC 300 Members** Gayathri Vijayakumar Philip Fairey Ian Finlayson Dean Gamble Edwin HensleyCharlie Haack Brian Shanks Jason Toves Kelly Parker Josh Spence Thiel Butner **RESNET STAFF** Noah KibbeRick DixonJackie DiazNeal Kruis | Terry Clausing Rob SalcidoRobby Schwarz | Richard PorterBob Sullivan |

1. **Introduction of Attendees (other than SDC members & RESNET Staff)**
2. **Approve Agenda & Sept 17th Meeting Minutes**

Edwin Hensley made a motion to approve the agenda, Brian Shanks seconded. No objections.

1. **Meeting/Call Schedule**
* Bi-monthly Calls (1-2 pm, 3rd Tuesdays, **next is January 21, 2025)**
1. **Overview of current and future projects**

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**Current Ballots Due After This Meeting:**

Ballot Due

IR 310-2020-001 Grading Mini-Split AC/HP 11.25.24

IR 301-2022-004 CMU Insulation Grading 11.19.24

PDS-02 380-2025 Comment Responses                    11.26.24

PDS-01 310-2025 Comment Responses 12.02.24

Publication 002-2024                                                   11.21.24

PDS-01 MINHERS Addendum 77 iHPWH                  11.26.24

PDS-01 MINHERS Addendum 82 HP/AC modeling    11.21.24

**Current Projects:**

**ANSI 301-2022 Standards Projects:**

Addendum C Interpretations, Software Consistency, Onsite Battery, SEER2

Status: **Done**           Completed SDC300 & SMB ballots. Pending ANSI Approval. Estimated in late Q4 2024.

[Addendum D](https://www.resnet.us/about/standards/resnet-ansi/draft-pds-01-resnet-icc-301-2022-addendum-d-202x-appendix-a-update/)           Appendix A Update, Insulation Grading

Status:                    Recirculation ballot conducted; PDS-01 Approved; 45 Day public comment began 8.30.24 and ends 10.14.24. Appendix A Task Group is working on recommended responses to comments.

Addendum E           CFIS Systems (single proposal for 301 & 380 amendments)

Status: **Done**           Completed SDC300 & SMB ballots. Pending ANSI Approval. Estimated in late Q4 2024.

[Addendum F](https://www.resnet.us/about/standards/resnet-ansi/draft-pds-01-resnet-icc-301-2022-addendum-f-202x-integrated-heat-pump-water-heater/)           iHPWH

Status: **Discontinued and Transitioned to MINHERS Addendum 77**

                   Task Group formed to address resolution of two different public comment proposed approaches to changing draft PDS-01; The Task Group developed a consensus recommendation on a technical approach. The Addendum to 301-2022 was discontinued and re-started as MINHERS Addendum 77. The ballot on approval of draft PDS-01 is currently open.

**ANSI 301-2025 Standards Projects:**

[**301-2025**](https://www.resnet.us/about/standards/minhers/draft-pds-01-resnet-icc-301-202x-update/) Update for the 4th Edition of Standard 301

Status : 45 day public comment period began 8.2.24 and ended 9.16.24. 7 comments received as of 9/9/24. The SDC approved the Calculations SC recommended responses to the comments. Commenters were notified and allowed 30 days to declare their objections unresolved. No commenter responded. There are no unresolved objections.

 A new policy on standards development was established by the RESNET Board of Directors at its October 29, 2024, meeting. A consequence is that final approval of Standard 301-2025 will be delayed until Standard 301-2022 Addendum D-202x is ANSI approved so it will be authomatically incorporated into Standard 301-2025. The delay will also allow completion and ANSI approval of Standards 310-2025 and 380-2025 so they can be adopted by 301-2025 without resorting to an addendum.

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**ANSI 380-2022 Standards Projects:**

Addendum B         CFIS Systems (single proposal for 301 & 380 amendments)

Status: **Done**           Completed SDC300 & SMB ballots. Pending ANSI Approval.

**ANSI 380-2025 Standards Projects:**

**380-2025** [Update for the 4th Edition of Standard 380](https://www.resnet.us/about/standards/resnet-ansi/draft-pds-01-resnet-icc-380-202x-update-comment-opens-april-26-2024/)

Status: No public comments were submitted on draft PDS-01 (PC closed on June 10, 2024). Three new internal proposals for change were considered by the EquipSC. The ballot on draft PDS-02 was initially delayed to determine if public comment on PDS-01 301-2025 may impact 380-2025 also. (Standards 301 and 380 are conjoined and are amended concurrently to ensure consistency.) The SDC approved draft PDS-02 that was then submitted for comment. One editorial comment was received and the ballot on approval of the response is currently open.

**ANSI 310 Standards Projects:**

CMP1                     Documentation of Refrigerant Weight

Status:                    The Equipment SC has agreement with the proponent to address this issue further during phase II of the Standard 310 update.

[**310-2025**](https://www.resnet.us/about/standards/minhers/draft-pds-01-resnet-acca-icc-310-202x-update/)                Update for the 2nd Edition of Standard 310

Status:       Draft PDS-01 approved by SDC300 on 5.23.24; ACCA approved 8.2.24; the 45 day public comment began 8.16.24 and ended 9.30.24. The Standard 310 Task Group has developed recommended responses to the comments on draft PDS-01 and submitted them for SDC consideration. The ballot on the responses is currently open.

**MINHERS Standards Addenda Projects:**

[Addendum 79](https://www.resnet.us/wp-content/uploads/FS_Adndm79f_InformNoteCrctn.pdf) Table 5.1.2(1) Informative Note Correction.

 Interim 79i Approved by SDC and in place.

 Final 79f Completed; SMB approved. Posted to the RESNET website.

Status: **Done**

[Addendum 76](https://www.resnet.us/about/standards/minhers/draft-pds-01-minhers-addendum-76-adoption-of-ansi-resnet-icc-301-2022/) Adoption of Standard 301-2022 & Addenda A & B

Status: **Done** Two comments were submitted on draft PDS-01; The SDC approved the Calculations SC recommendation to reject the comments. The SMB approved the addendum for publication. The Voluntary Compliance Date is January 1, 2025 and the Mandatory Compliance Date is July 1, 2025.

Addendum 77 iHPHW *(Formerly Proposed Standard 301-2022 Addendum F)*

Status: The Task Group Working Draft was reviewed by the Calculations SC and recommended to the SDC for approval. The SDC ballot on draft PDS-01 Addendum 77 is currently open.

 Addendum 82 DX HP/AC Modeling

Status: The Task Group Working Draft was reviewed by the Calculations SC and recommended to the SDC for approval. The SDC ballot on draft PDS-01 Addendum 82 is currently open.

Addendum 83 CMU Insulation Grading and Default Modeling Thermal Properties

Status: SMB approved interim addendum project. A ballot for approval of a draft addendum will be provided in November.

**Interprétations**

IR301-2022-002      Commercial DHW Efficiency

TG was set up to develop recommendation for CalcSC to consider

IR301-2019-035 Insulation Filled Cores CMU

Completed.

IR301-2022-004 Pourable Insulation Filled CMU Cores Grading

 Ballot on the interpretation is currently open.

IRHERS/310-2020-001 Grading Mini-Split AC/HP

 Ballot on the interpretation is currently open.

**Future Standards Projects:**

RESNET/ICC 301-2025 Addendum A, Changes based on sections not open for comment on draft PDS-01 and any other touch-ups.

MINHERS Addendum 81, Adoption of Standard 301-2022 Addenda C & E; Bedroom definition; Model home sales office/garage;

1. **Sub-Committee or Task Group Chair Updates & Upcoming Ballots**
	* Calcs [Philip/Gayathri/Neal]
		+ Update on Addendum 77 (formerly AddendumF) - Gayathri

The committee reviewed updates to hybrid heat pump water heater requirements, now proposed as MINHERS Addendum 77 for refinement and feedback.

The addendum sets criteria for validating efficiency, focusing on hybrid systems that use both heat pump and electric resistance modes. Definitions were clarified to limit the scope to these systems, addressing factors like airflow and space volume.

Key updates include requirements for installation: systems must have either 700 cubic feet of air volume, ducted intake and exhaust, or a 300-square-inch net free opening for airflow. A default calculation method for determining the net free area was also added to assist Raters.

New language on heat source calculations ensures consistency across modeling systems. These updates aim to create clear, practical standards for hybrid systems while accommodating industry needs.

* + - Questions/discussion Publication 002-2024 – Neal

The updates include a mix of editorial and significant changes, with the most notable revisions related to standard 140 and its acceptance criteria for load calculation cases. These changes, which have been presented at multiple RESNET conferences, aim to increase consistency across software applications and include stricter criteria that all software developers have demonstrated compliance with.

Minor updates related to changes in Standard 301, set to be adopted in 2025, were also made. Updates to acceptance criteria for HVAC tests and distribution system efficiency tests were noted, as well as clarifications requiring software to maintain consistent settings across both testing and application scenarios.

Further revisions include the requirement for software to provide detailed diagnostic outputs to help RESNET staff and energy modeling teams evaluate discrepancies, and a new testing capability requiring software to simulate a scenario where the rated home matches the reference home, producing an ERI of 100.

One editorial update replaced "301-2022" with "MINHERS Standard" for consistency, and minor corrections such as removing unnecessary sections and updating the cover date were also made.

To address concerns, it was clarified that this is an SDC 300 ballot and not subject to public comment. The ballot remains active, and three editorial changes made since its release will not affect the voting process. These changes will be explicitly noted and distributed to all committee members alongside meeting minutes for transparency. Despite the adjustments, the intent of the document remains unchanged, and the revisions are considered non-substantive. The process will proceed without requiring re-balloting, ensuring all members are informed of the updates.

* + - Questions/discussion Addendum 82 – Neal

This Addendum is being proposed as an amendment to the RESNET MINHERS standards rather than directly as an ANSI standard. By approaching it through MINHERS first, the group aims to gather public comments and manufacturer feedback to refine the proposal before advancing it to ANSI. Neal emphasized that this approach allows for more flexibility to address potential issues before software developers fully implement the changes.

The addendum was previously reviewed by the SDC300 in September, and no significant updates have been made to the document since then. Neal has addressed questions from voting members, including clarifications about the rationale behind specific data in the tables. Rick and Neal also highlighted that, while public comments may lead to refinements, the addendum will not immediately proceed to publication even if no substantial feedback is received. A detailed impact analysis and timeline for voluntary and mandatory compliance dates will be required before adoption.

To ensure a thorough review, the public comment period for this addendum will be extended to 45 days, accounting for the holiday season and allowing ample time for feedback from key stakeholders. The intent is to treat the MINHERS process as a beta testing phase, providing an opportunity to identify and resolve potential issues before the addendum is incorporated into ANSI standards.

Under the current timeline, the addendum will also need to be proposed to ANSI within six months of its mandatory adoption under MINHERS. By using MINHERS as a preliminary testing ground, any necessary adjustments can be implemented more swiftly, including interim amendments if needed. This method allows RESNET to refine and vet the addendum thoroughly before releasing it as part of the broader ANSI standard.

* + - Update on Addendum 83 – CMU Insulation – Gayathri

Follow-up interpretation request concerning foam-filled core concrete masonry unit (FFCMU) blocks and their ability to achieve Grade I insulation. Previously, the committee determined that these blocks could not achieve Grade I due to the lack of an established procedure in the standard.

Richard stated that FFCMU blocks have been used in Energy Star-certified homes for years, implying compliance with Grade I. However, the committee clarified that past practices likely reflected a misinterpretation of the standard rather than compliance. The current issue stems from the absence of a formal grading procedure for this product type.

To address this, the next steps involve developing specific criteria and procedures for FFCMU blocks to achieve Grade I. Richard and Bob are collaborating with the calculations subcommittee and the working group for Addendum D to draft an interim addendum. This addendum will ensure consistency across Raters and align with potential future updates to the grading framework, such as moving from a Grade I-III system to a properly installed/not properly installed model under Addendum D.

The interim addendum is expected to undergo review by the calculations subcommittee in December, if approved, it could be implemented by the end of the year, allowing for consistent assessment practices without major disruptions. Additional steps will involve refining the interim amendment into a formal addendum for long-term integration into the standard. For those seeking further details, Richard’s slide deck on the topic will be shared with the meeting minutes.

* + Equipment [Dean]
		- Update on PDS-01 310-2025 comment responses

The group has worked on incorporating straightforward updates into the initial edition of 310-2025, addressing changes that have accumulated over the last five years. This first phase, focusing on non-contentious updates, recently concluded a public comment period, yielding 13 comments. The second phase, scheduled for next year, will address more complex issues requiring further deliberation and consensus.

The group received 13 comments, five were deemed out of scope, as they pertained to different standards or sections not open for comment. Of the five editorial comments, two were accepted to correct typos, while three were rejected.

One rejection clarified that the suggested typo did not exist in the draft, another maintained the capitalization of defined terms per formatting conventions, and the third retained an update meant to clarify content despite disagreement from the commenter.

The remaining three comments addressed more substantive issues, including a proposed exemption for systems with less than 10 feet of total supply duct length from certain tests. These exemptions, already vetted and used in MINHERS, were upheld despite objections.

Another comment suggested allowing the standard to apply to water loop heat pumps, which was rejected because the current protocols are not well-suited for these systems.

Additionally, a comment proposing the integration of Manual S sizing limits into the design criteria was rejected. This proposal, submitted by ACCA, was out of scope for the current phase and deemed premature. Incorporating Manual S sizing limits would require careful consideration due to ongoing revisions in Manual S and a lack of consensus on appropriate limits.

Rick added procedural context, noting that a Memorandum of Understanding (MOU) between ACCA and RESNET mandates that any public review drafts, final drafts, or interpretations of Standard 310 require mutual approval. The group will move forward cautiously, addressing unresolved issues in Phase 2 while maintaining procedural integrity for Phase 1 revisions.

* + - Ballot for responses to comments on PDS-01 310-2025 (pending)
		- Comment interpretation for 310

There is an interpretation request for Standard 310 related to refrigerant charge procedures, specifically the weigh-in method. Under the current standard, the refrigerant charge calculation assumes that HVAC manufacturers pre-charge their systems with enough refrigerant to account for a specified line length—commonly 15 feet. If the installed line length exceeds this value, additional refrigerant is required. However, some advanced HVAC systems, such as variable refrigerant flow systems (e.g., mini-splits), specify a range of acceptable pre-charged line lengths rather than a single fixed value.

The interpretation request seeks clarity on how to handle such cases. Specifically, it proposes allowing the installer to use the actual installed line length as the value accounted for in the manufacturer’s pre-charge, provided the length falls within the acceptable range specified by the manufacturer.

SDC300 members are being asked to vote on whether they agree with this interpretation. If approved, the interpretation will proceed to ACCA for review, as required by the MOU between ACCA and RESNET. This marks the first official interpretation request for Standard 310.

* + - PDS-02 380-2002 update [Dean]

There is a single editorial comment that proposes revising language for clarity and consistency in the 380-2025 edition. The edit shifts a sentence from active to passive voice and eliminates the term "Rater," which is not a defined term within Standard 380. This change aims to simplify and streamline the language while maintaining the original intent of the provision. During the review, it was noted that an additional minor adjustment was needed to correct the word "tape" to "taped."

The reason statement accompanying the change was included in the email body rather than in the draft document itself, the document will be edited to include the reason statement and sent back to the commenter.

* + Enclosures [Robby]
		- Update on Addendum D: Appendix A, Insulation Installation Grading

The addendum has gone out for public comment, and the group is actively working on addressing the responses. 27 comments were received, the majority of which were minor suggestions pointing out small fixes that have already been addressed. Two multi-part comments, each containing 20 to 30 sub-comments, are still under review. Progress has been steady, and the group anticipates completing their work by December.

The comments received have been mostly constructive, with very few opposing the proposed changes. Only one comment outright suggested deleting the change. Once the comments are addressed, Charlie and Robbie will draft a revised version of Addendum D for a second round of public comment. The timeline suggests that draft responses to comments will likely be ready by early December, with electronic ballots for review and approval sent out to members before the SDC 300's next scheduled meeting on January 21.

For members wanting to revisit concerns or participate further, Charlie invited them to join the working group meetings. Additionally, Rick clarified the process: there will be two ballots—one for the responses to comments, likely around early December, and another for the revised draft after commenters have had 10 days to respond to the group’s resolutions. The timeline indicates that the ballot for PDS-02 will arrive in January. Overall, the process is on track, with constructive engagement and thorough attention to the feedback received.

* + MINHERS
		- Approved Amendments (see above)
		- Upcoming Amendments (see above)
			1. MINHERS 81 - Various [Rick]
1. **Other Topics/New Business**
* New Board of Directors Policy on Staging of Standards Development and impact on SDC 300 projects (Gayathri/Rick)

Rick has a chart outlining the outstanding ballots that require completion. He will be reaching out individually to those who still need to fill out their ballots to ensure votes are submitted promptly.

1. **Adjournment**

Meeting adjourned at 2pm ET

**Supplemental Information:**

**Standards and Addenda Completed in 2022 & 2023**

**RESNET/ANSI Standards Projects -**

**301-2022**

301-2022 2022 Edition of Standard 301

Status: SMB 1.8.22. ANSI final approval 2.3.22.

**301-2022**

 Addendum A RECS

 Status:                    ANSI final action: 7.28.22

Addendum B CO2E Index

Status:                    ANSI final action: 10.12.22

**380-2022**

380-2022 2022 Edition of Standard 380

Status: SMB 5.9.22. ANSI final approval 5.10.22.

**380-2022**

Addendum A           Standard 301-2022 & ASTM E Reference

Status:                    ANSI final action: 5.19.23

**301-2019**

Addendum C Defaults in lieu of DLTO test

Status: SMB approved 1.8.22. ANSI final approval 3.1.22.

Addendum D CO2 Rating Index

Status: SMB approved 1.13.22. ANSI final approval 3.4.22.

Addendum E Update Standard 301 Appendix A, Insulation Grading

Status: Decision 6.2022 to discontinue as 301-2019. Project

restarted as proposed Addendum D to 301-2022.

**MINHERS Standards Projects:**

[Addendum 74](https://www.resnet.us/wp-content/uploads/FSAdndm74_DeleteExcptnAddDef-SpaceConstrained_webpost.pdf) Delete COVID Pandemic Exception for Leakage Testing & Add Definition for Space Constrained AC and Heat Pump

Status:                    Posted: Approved 10.10.2023: MCD 1.1.2024

Addendum 66i CO2 Index

Status: Completed and posted. Effective March 4, 2022

Addendum 65f Third Party Energy Efficiency Program HERS Ratings,

 Renewable Energy Credits

Status: SMB approved 8.5.22. Adn 65i currently in effect. Adn 65f

Mandatory 1.1.23

Addendum 65i Third Party Energy Efficiency Program HERS Ratings,

 Renewable Energy Credits

Status: Completed, Effective January 31, 2022

Addendum 64f Inspections and tests sampling criteria for MF dwelling

 units

Status: Completed, Mandatory July 1, 2022

Addendum 64i Inspections and tests sampling criteria for MF dwelling

 units

Status: Completed, Effective January 3, 2022

Addendum 61f Reinstitute Addendum 48i pandemic exception allowing

use of defaults in lieu of tested values for leakage

(Exception expires 30 days after federal emergency

declaration ends)

Status: Completed, Mandatory July 1, 2022

Addendum 61i Reinstitute Addendum 48i pandemic exception allowing use

 of defaults in lieu of tested values for leakage

Status: Completed, Effective October 19, 2021

Addendum 57 Align HERS Changes with Jurisdiction Codes Updates

Status: Discontinued, Issue addressed via Addendum 65

Addendum 53f Implementation of Stds 301-2019 & 310-2020 for the HERS: (final of Addenda 53i & 55i)

Status: Completed, Mandatory January 1, 2022