

MINUTES
GBI Consensus Body for New Construction- Call #7
Webinar/Teleconference
April 3, 2024, from 1:00 p.m. to 3:00 p.m. ET

NOTE ALL TIMES ARE EASTERN TIME

Consensus Body Members in Attendance

Full Name	Company	4/3/24	3/27/24	3/6/24	3/4/24	3/8/23	3/1/23
Jeff Bradley	American Wood Council	X (arrived late)	X	X	X (left early)	X	X
Karen Butler	EPA, Office of Air and Radiation	X	X	X	X	X	X
Virgil Campaneria (Chair)	Gurri Matute PA	X	Absent	X	X	X	X
Michael Cudahy	PPFA - PPEF	X	X	X	Absent	X	X
Larry Eisenberg	Ovus Partners 360	X	X	X	X	X (Proxy Shymko)	X
Tehmina Husain	Merrick and Company	N/A	N/A	Absent	Absent	X	Absent
Josh Jacobs	WAP Sustainability	Absent	X	X	X	Absent	Absent
Ashley Langenfeld	Hoefer Welker	X (left early)	X	X	X	X	X
Michael Lehman	ConTech Lighting	X	Absent	Absent	X	X	X
John Mullen	IAPMO	X (Proxy Butler)	X (Proxy Tin)	X	X	X	X
James O'Brien	Independent Environmental Consultant	Absent	X (Acting Chair)	X	X	X	X
Max Puchtel	American Institute of Steel Construction	X	X	X	X	Absent	X (left early)
Jane Rohde	JSR Associates, Inc. (representing RFCI)	X (Proxy Cudahy)	X	Absent	X	Absent	X
Gord Shymko	G. F. Shymko & Associates Inc.	N/A	N/A	N/A	N/A	X	X

Stephen Szoke	American Concrete Institute	X	X (Proxy Puchtel)	X	X	X	X
Sumayyah Theron	Cyclone Energy Group	X (left early)	X	X	X (left early)	N/A	N/A
Angela Tin	American Lung Association	Absent	X	X	X	X	X (Proxy O'Brien)

Voting Alternates in Attendance

Full Name	Organization	4/3/24	3/27/24	3/6/24	3/4/24	3/8/23	3/1/23
John Cross	American Institute of Steel Construction					X	

Interested Parties in Attendance

Full Name	Organization	4/3/24	3/27/24	3/6/24	3/4/24	3/8/23	3/1/23
Rob Brooks	Rob Brooks Associate						
Ron Burke	Alliance for Water Efficiency					X	
Steve Kooy	BIFMA						
Viken Koukounian	Parklane Mechanical Acoustics	X	X (arrived late)			X	
Matthew Lemay	NRMCA						
Julian Mills – Beale	NRMCA					X	
Niklas Moeller	LogiSon Acoustic Network				X		

Staff in Attendance

Full Name	Organization	4/3/24	3/27/24	3/6/24	3/4/24	3/8/23	3/1/23
Emily Marx	Secretariat, GBI	X	X	X	X	X	X
Sara Rademacher	Staff, GBI	X	X		X	X	X
Micah Thomas	Staff, GBI			X			

Roll Call & Welcome

Secretariat Emily Marx welcomed everyone to the meeting, reviewed the GBI Anti-Trust Policy, Code of Conduct policy and notified participants that the call was being recorded for the purpose of preparing minutes. No objections or concerns were raised. She asked if any guests or interested parties wanted to discuss any comment or topic. No interested party noted an item they wanted to discuss.

Marx reviewed the Consensus Body for New Construction roster and noted the three interest categories, General Interest, Producer, and User. She stated that there is balance on the Consensus Body for New Construction.

Administrative Items

Chair Virgil Campaneria welcomed everyone to the meeting and asked attendees to be respectful of speaking time and discussion to allow adequate time for all attendees to participate. Campaneria reviewed the agenda and asked if anyone had any comments or concerns. There were no concerns or comments.

MOTION: A Motion was made, seconded, and carried unanimously to approve the agenda as presented.

Campaneria reviewed the #4 minutes from March 4, 2024, and the #5 minutes from March 6, 2024, and asked if anyone had any comments or concerns. There were no concerns or comments.

MOTION: A Motion was made, seconded, and carried unanimously to approve the #4 minutes from March 4, 2024, and the #5 minutes from March 6, 2024, as presented.

Energy Public Comment Review

The Secretariat reviewed each proposed revision before a motion was made.

Energy-209 & Energy-210

Energy-209 Proposed Revision: 8.1.1A PATH A: ANSI/ASHRAE/IES STANDARD 90.1-2013, APPENDIX G. ~~Other Baselines: OR ANSI/ASHRAE/IES STANDARD Appendix G, 90.1-2010, 90.1-2016, OR 90.1-2019, as translated using the Green Globes Energy Baseline Calculator (180 POINTS)~~

~~8.1.1A.1 The building complies with minimum performance based requirements of ANSI/ASHRAE/IES Standard 90.1-2010 or the 2012 IECC; The proposed building complies with all minimum energy performance requirements of the Authority Having Jurisdiction.~~

AND

~~The building demonstrates an improvement over an ANSI/ASHRAE/IES Standard 90.1-2010 Appendix G baseline through the use of a whole-building energy modeling. The Proposed building demonstrates an improvement over the ANSI/ASHRAE/IES Standard 90.1-2013 Appendix G Baseline through the use of whole-building energy modeling in accordance with Appendix G. For whole-building energy modeling in accordance with ANSI/ASHRAE/IES Standards 90.1-2010, 90.1-2016, or~~

90.1-2019 Appendix G (as may be dictated by the Authority Having Jurisdiction), the Green Globes Energy Baseline Calculator is used to estimate the ANSI/ASHRAE/IES Standard 90.1-2013 Appendix G baseline.

If there is no Authority Having Jurisdiction requirement for ANSI/ASHRAE/IES Standard 90.1 compliance, any of the aforementioned versions of ANSI/ASHRAE/IES 90.1 may be utilized for compliance in conjunction with the Green Globes Energy Baseline Calculator.

OR

The proposed building complies with the minimum performance-based requirements of either ANSI/ASHRAE/IES Standard 90.1-2013, 90.1-2016, or 90.1-2019, or the 2015, 2018, or 2021 IECC.

AND

The proposed building demonstrates an improvement over an estimated ANSI/ASHRAE/IES Standard 90.1-2010 Appendix G baseline through the use of whole building energy modeling in accordance with Appendix G for either ANSI/ASHRAE/IES Standards 90.1-2013, 2016, or 2019, using the Green Globes® Energy Baseline Translator™ to estimate the ANSI/ASHRAE/IES Standard 90.1-2010 Appendix G baseline.

Maximum = 180 points

- One hundred and eighty points are earned for a $\geq 40\%$ improvement over the baseline.
- One hundred and seventy-six points are earned for a $\geq 38\%$ to $< 40\%$ improvement over the baseline.
- One hundred and sixty-eight points are earned for a ~~$\geq 38\%$ to $< 40\%$~~ $\geq 36\%$ to $< 38\%$ improvement over the baseline.
- One hundred and sixty points are earned for a $\geq 34\%$ to $< 36\%$ improvement over the baseline.
- One hundred and fifty-two points are earned for a $\geq 32\%$ to $< 34\%$ improvement over the baseline.
- One hundred and forty-four points are earned for a $\geq 30\%$ to $< 32\%$ improvement over the baseline.
- One hundred and thirty-six points are earned for a $\geq 28\%$ to $< 30\%$ improvement over the baseline.
- One hundred and twenty-eight points are earned for a $\geq 26\%$ to $< 28\%$ improvement over the baseline.
- One hundred and twenty points are earned for a $\geq 24\%$ to $< 26\%$ improvement over the baseline.
- One hundred and twelve points are earned for a $\geq 22\%$ to $< 24\%$ improvement over the baseline.
- One hundred and four points are earned for a $\geq 20\%$ to $< 22\%$ improvement over the baseline.
- Ninety-six points are earned for a $\geq 18\%$ to $< 20\%$ improvement over the baseline.
- Eighty-eight points are earned for a $\geq 16\%$ to $< 18\%$ improvement over the baseline.
- Eighty points are earned for a $\geq 14\%$ to $< 16\%$ improvement over the baseline.
- Seventy-two points are earned for a $\geq 12\%$ to $< 14\%$ improvement over the baseline.
- Sixty-four points are earned for a $\geq 10\%$ to $< 12\%$ improvement over the baseline.
- Fifty-six points are earned for a $\geq 8\%$ to $< 10\%$ improvement over the baseline.
- Forty-eight points are earned for a $\geq 6\%$ to $< 8\%$ improvement over the baseline.
- Forty points are earned for a $\geq 4\%$ to $< 6\%$ improvement over the baseline.
- Thirty-two points are earned for a $\geq 2\%$ to $< 4\%$ improvement over the baseline.
- Twenty-four points are earned for a $\geq 0\%$ to $< 2\%$ improvement over the baseline.
- No points are earned for a 0% improvement over the baseline.

- One hundred eighty points are earned for a $\geq 45\%$ improvement over the baseline.
- One hundred sixty points are earned for a $\geq 40\%$ to $< 45\%$ improvement over the baseline.
- One hundred forty points are earned for a $\geq 35\%$ to $< 40\%$ improvement over the baseline.
- One hundred twenty points are earned for a $\geq 30\%$ to $< 35\%$ improvement over the baseline.
- One hundred points are earned for a $\geq 25\%$ to $< 30\%$ improvement over the baseline.
- Eighty points are earned for a $\geq 20\%$ to $< 25\%$ improvement over the baseline.
- Sixty points are earned for a $\geq 15\%$ to $< 20\%$ improvement over the baseline.
- Forty points are earned for a $\geq 10\%$ to $< 15\%$ improvement over the baseline.
- Twenty points are earned for a $\geq 5\%$ to $< 10\%$ improvement over the baseline.
- No points are earned for a $< 5\%$ improvement over the baseline.

Energy-210 Proposed Revision: 8.1.1B Path B: Performance – International Energy Conservation Code (IECC), 2012, 2015, 2018, or 2021 as translated to ANSI/ASHRAE/IES Standard 90.1-2013, Appendix G (8.1.1A Path A), as applicable to the project as dictated by the Authority Having Jurisdiction and translated using the Green Globes Energy Baseline Calculator (180 POINTS)

8.1.1B.1 The proposed building complies with all minimum energy performance requirements of the Authority Having Jurisdiction.

AND

The building demonstrates an improvement over an estimated ANSI/ASHRAE/IES Standard 90.1-2013, Appendix G (as per 8.1.1A Path A) through the use of a whole-building energy modeling and as translated from the IECC Baseline using the Green Globes Energy Baseline Calculator.

If there is no Authority Having Jurisdiction requirement for IECC compliance, any of the aforementioned versions of the IECC may be utilized for compliance in conjunction with the Green Globes Energy Baseline Calculator.

Maximum = 180 points

- One hundred and eighty points are earned for a $\geq 40\%$ improvement over the baseline.
- One hundred and seventy-six points are earned for a $\geq 38\%$ to $< 40\%$ improvement over the baseline.
- One hundred and sixty-eight points are earned for a ~~$\geq 38\%$ to $< 40\%$~~ $\geq 36\%$ to $< 38\%$ improvement over the baseline.
- One hundred and sixty points are earned for a $\geq 34\%$ to $< 36\%$ improvement over the baseline.
- One hundred and fifty-two points are earned for a $\geq 32\%$ to $< 34\%$ improvement over the baseline.
- One hundred and forty-four points are earned for a $\geq 30\%$ to $< 32\%$ improvement over the baseline.
- One hundred and thirty-six points are earned for a $\geq 28\%$ to $< 30\%$ improvement over the baseline.
- One hundred and twenty-eight points are earned for a $\geq 26\%$ to $< 28\%$ improvement over the baseline.
- One hundred and twenty points are earned for a $\geq 24\%$ to $< 26\%$ improvement over the baseline.
- One hundred and twelve points are earned for a $\geq 22\%$ to $< 24\%$ improvement over the baseline.

- One hundred and four points are earned for a $\geq 20\%$ to $< 22\%$ improvement over the baseline.
- Ninety-six points are earned for a $\geq 18\%$ to $< 20\%$ improvement over the baseline.
- Eighty-eight points are earned for a $\geq 16\%$ to $< 18\%$ improvement over the baseline.
- Eighty points are earned for a $\geq 14\%$ to $< 16\%$ improvement over the baseline.
- Seventy-two points are earned for a $\geq 12\%$ to $< 14\%$ improvement over the baseline.
- 64 points are earned for a $\geq 10\%$ to $< 12\%$ improvement over the baseline.
- Fifty-six points are earned for a $\geq 8\%$ to $< 10\%$ improvement over the baseline.
- Forty-eight points are earned for a $\geq 6\%$ to $< 8\%$ improvement over the baseline.
- Forty points are earned for a $\geq 4\%$ to $< 6\%$ improvement over the baseline.
- Thirty-two points are earned for a $\geq 2\%$ to $< 4\%$ improvement over the baseline.
- Twenty-four points are earned for a $\geq 0\%$ to $< 2\%$ improvement over the baseline.
- No points are earned for a 0% improvement over the baseline.

Discussion took place before the Motion:

- The Secretariat noted that everything in black was previously approved by the Consensus Body, and the revision is only the text in red, which is a correction of the percentage of improvement over baseline.

MOTION: The Motion was made and seconded to accept the proposed revisions for Energy-209 & Energy-210.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 10 in favor, 0 opposed, 0 abstained.

Energy-217

Proposed Revision: 8.3.1.1 Install Metering or ensure a mandatory design requirement exists for metering (at the building level) for the following:

- Electricity;
- Heating fuels;
- Steam; and
- Other (e.g., chilled or hot water for campus/district systems).

Maximum = 10 5 points

- ~~One~~ Two points ~~are~~ is earned for each 20% increment of the building's site energy that is metered through any combination of building-level energy meters up to a maximum of 10 5 points.

Discussion took place before the Motion:

- The Secretariat noted that everything in black was previously approved by the Consensus Body, and the revision is only the text in red, which is a correction of point distribution.

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 10 in favor, 0 opposed, 0 abstained.

NCCB207

Proposed Revision: 8.3.3 ~~VERIFICATION~~ FAULT DETECTION AND DIAGNOSTIC SYSTEM

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 10 in favor, 0 opposed, 0 abstained.

Materials Public Comment Review

The Secretariat reviewed each proposed revision or public comment before a motion was made.

Jeff Bradley joined the meeting.

204-1

Public Comment: 10.4.1.1 Points are earned based on the Sustainable Materials Index (SMI), the percentage of the total value of the building materials that have sustainable materials attributes. The sustainable materials attributes considered in calculating the SMI are third-party certified pre-consumer recycled content, post-consumer recycled content, biobased content, ~~third-party~~ sustainable forestry certification content and materials or that meet the requirements of the Eco-Certified Composite sustainability standard. The SMI is the sum of the value of these attributes divided by the Total Project Materials Cost expressed as a percentage.

Sustainable Materials Index (%) =

$$\begin{aligned} &100 \times \\ &(\$ \text{ value of pre-consumer recycled content} \\ &+ \\ &\$ \text{ value of post-consumer recycled content} \\ &+ \\ &\$ \text{ value of biobased content} \\ &+ \\ &\$ \text{ value of third-party sustainable forestry certification content} \\ &+ \\ &\$ \text{ value of Eco-Certified Composite}) \\ &\div \\ &\text{Total Project Materials Cost} \end{aligned}$$

See example Sustainable Materials Index (SMI) Worksheet in the Technical Reference Manual.

Only the portion of materials that has the identified attribute should be included. For example, if a

product has 40% pre-consumer recycled content, only 40% of the value of that product is included.

Products that are claimed for credit under Third-Party Sustainable Forestry Certification are not included as biobased content.

Biobased content percentage may be calculated by weight or in accordance with ASTM D6866-16 Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis, or equivalent third-party standards.

The following ~~forest~~ certification systems and standards are recognized:

- Forest Stewardship Council (FSC): <https://us.fsc.org/en-us> (last accessed 1/23/23)
- Sustainable Forestry Initiative, Inc. (SFI): <http://www.sfiprogram.org/> (last accessed 1/23/23)
- American Tree Farm System (ATFS): <https://www.treefarmssystem.org/> (last access 1/23/23)
- Canadian Standards Association Sustainable Forestry Management (CSA):
<http://www.csasfmforests.ca/> (last accessed 1/23/23)

- Programme for the Endorsement of Forest Certification (PEFC): <https://www.pefc.org/> (last accessed 1/23/23)

- UL 2809 Environmental Claim Validation Procedure for Defined Recycled Content

- UL 9798 Environmental Claim Validation Procedure for Biobased Content

- Products categorized as Responsible or Certified Sources in accordance with ASTM D7612-21 Standard Practice for Categorizing Wood and Wood-Based Products According to Their Fiber Sources.

Recommended Response: Thank you for your comment. Your comment has been rejected for the following reason: Commenter reasoning was not provided, which is necessary for the Consensus Body to understand the impact of the proposed change.

Discussion took place before the Motion:

- It was argued that this addition is expanding the criteria from forestry certifications to those that are outside what the true intention of the criteria was.
- It was noted that ACI just went out for public comment on a low carbon concrete material. It was argued that it may be wise to add that item to the list if it is approved to add others.

MOTION: The Motion was made and seconded to accept the proposed response.

Discussion took place on the Motion:

- It was noted that this changes the intent of the criteria by too much.

WITHDRAWN: The motion and second were withdrawn.

MOTION: The Motion was made and seconded to send the comment back to the subcommittee for further review.

Discussion took place on the Motion:

- It was suggested that we should reject the revision so that the submitter comes up with a solution for their true intent where it doesn't change the original intentions of the criteria.

WITHDRAWN: The motion and second were withdrawn.

MOTION: The Motion was made and seconded to reject the revision and reply with the proposed response.

Discussion took place on the Motion:

- It was argued that this change is similar to those that were approved previously of updating the criteria to recycled plastics and not necessarily about sustainable concrete.
- There was discussion on how best to address the revision to the submitter.

VOTE: The Motion carries with 10 in favor, 0 opposed, 1 abstained.

Abstain: Jeff Bradley

NCMaterials-202

Proposed Revision: See the Green Globes Materials and VOC Emissions Tracker-example Sustainable Materials Index (SMI) Worksheet in the Technical Reference Manual.

Reason: Confirm the name.

2/20/24 Note: Text in red added by Secretariat as confirmation of name.

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 10 in favor, 0 opposed, 1 abstained.

Abstain: Jeff Bradley

NCMaterials-220

Proposed Revision: The following forest certification systems and standards are recognized:

- Forest Stewardship Council (FSC): <https://us.fsc.org/en-us> (last accessed ~~1/23/23~~ 2/28/24)
- Sustainable Forestry Initiative, Inc. (SFI): ~~<http://www.sfiprogram.org/>~~ <https://www.forests.org/> (last accessed ~~1/23/23~~ 2/28/24)
- American Tree Farm System (ATFS): <https://www.treefarmssystem.org/> (last access ~~1/23/23~~ 2/28/24)
- Canadian Standards Association Sustainable Forestry Management (CSA): ~~<http://www.csasfmforests.ca/>~~ <https://www.pefccanada.org/> (last accessed ~~1/23/23~~ 2/28/24)
- Programme for the Endorsement of Forest Certification (PEFC): <https://www.pefc.org/> (last accessed ~~1/23/23~~ 2/28/24)
- Products categorized as Responsible or Certified Sources in accordance with ASTM D7612-21 Standard Practice for Categorizing Wood and Wood-Based Products According to Their Fiber Sources.

Reason: Updated and reviewed links

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 11 in favor, 0 opposed, 0 abstained.

203-31

Public Comment: The following forest certification systems and non-forestry related standards are recognized:

Add:

Concrete Sustainability Council (CSC)

Reason: The CSC is the global certification system for responsibly sourced ready-mixed and precast concrete. CSC certification is BREEAM DGNB USGBC assessment programs and follows a holistic approach which requires compliance with five fundamental prerequisites and a wide range of social and environmental performance indicators, There are currently more than 900 Certified Projects in 21 countries.

<https://csc.eco/>

In addition, I feel we could still add most of the material-specific credits accepted in LEED.

Here are others for consideration:

- Aluminum Stewardship Initiative Chain of Custody Standard
- BRE:BES 6001 Responsible Sourcing of Construction Products Standard (v3.1)
- BRE: BES 6002 Ethical Labour Sourcing Standard (v1) – Level One (likely out of scope)
- Concrete Sustainability Council Certification

MOTION: The Motion was made and seconded to accept the proposed response.

Discussion took place on the Motion:

- It was noted that adding this would be adding a reference without a requirement and because the Consensus Body rejected 204-1, they should also reject this for the same reason.
- It was argued that this is more about what is happening at the plants instead of the SMI of the building and should be rejected.

WITHDRAWN: The motion and second were withdrawn.

MOTION: The Motion was made and seconded to send the public comment back to the subcommittee for further review.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 11 in favor, 0 opposed, 0 abstained.

203-26

Public Comment: Project may not achieve points in more than one option.

Reason: NRMCA is supportive of Whole Building LCA. However, there is some confusion on point achievements. For instance, if the project team chooses 10.1.1.3 WBLCA for comparison of all the life cycle impact indicators (16 points for highest achievement), does that mean they can simply use that for 10.1.1.2 (7 points) for considering only GWP? And since they are doing a WBLCA they can get the 10.1.1.1 (3 points) as well? Or was this the intention?

MOTION: The Motion was made and seconded to reject the public comment.

Discussion took place on the Motion:

- There was discussion that this was previously discussed by the Materials Subcommittee and accepting the public comment would reverse the true intent of the entire section in the standard.
- It was argued that this should be reviewed further by the subcommittee.

WITHDRAWN: The motion and second were withdrawn.

There was an agreement to send all remaining public comments back to the Materials Subcommittee for further review.

MOTION: The Motion was made and seconded to send public comments, 203-26, 203-27, 203-28, 203-29, 203-30, and 204-2, back to subcommittee for further review.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 10 in favor, 0 opposed, 1 abstained.

Abstain: Mike Lehman

Sumayyah Theron left the meeting.

Indoor Environment (IE) Public Comment Review

The Secretariat reviewed each proposed revision or public comment before a motion was made.

NCIE233a, NCIE233b, NCIE234, NCIE235

NCIE233a Proposed Revision: 11.2.1.1 Adhesives and sealants ~~(not including carpet adhesives)~~ that are applied on site within, or part of, the building envelope's continuous plane of air tightness comply with VOC content limits for 90% of products by volume AND/OR VOC emissions criteria for 70% of products by volume.

Table 11.2.1.1 ~~(excluded from excerpt)~~

VOC Emissions Criteria

VOC emissions results are determined by either the California Department of Public Health's Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.2, ~~February~~ January 2017; or UL 2821 ~~Ed.1 – 2021~~ Ed.2 – 2022 GREENGUARD Certification Program Method for Measuring and Evaluating Chemical Emissions from Building Materials, Finishes and Furnishings, Edition 2, 2022 ~~2013~~.

Provide documentation indicating the product does not have VOC emissions exceeding compliance with the requirements as stated in the Standard Private Office Scenario in CDPH Standard Method V1.2 or a certification by a ~~certification~~ certifying body accredited to ISO/IEC 17065:2012 and with relevant certification program in the scope of its accreditation.

Maximum = 3 points

- Two points are earned where 70% of products by volume comply with VOC emissions criteria.
- One point is earned where 90% of products by volume comply with VOC content limits.

NCIE233a Reason: Staff Note: UL References in red further revised due to SME feedback.

NCIE233b Proposed Revision: 6.2.1.2 Paints and coatings applied on site within, or are a part of, the building's continuous plane of air tightness comply with VOC content limits detailed in CARB 2007 SCM for 90% of products by volume AND/OR VOC emissions criteria) for 70% of products by volume.

VOC Emissions Criteria

VOC emissions results are determined by the California Department of Public Health's Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.2, ~~February~~ January 2017; or

UL 2821 ~~Ed.1—2021~~ GREENGUARD Certification Program Method for Measuring and Evaluating Chemical Emissions from Building Materials, Finishes and Furnishings, Edition 2, 2022 ~~2013~~.

Provide documentation indicating the product does not have VOC emissions exceeding compliance with the requirements as stated in the Standard Private Office Scenario in CDPH Standard Method V1.2 or a certification by a certification certifying body accredited to ISO/IEC 17065:2012 and with relevant certification program in the scope of its accreditation.

NCIE233b Reason: Staff Note: UL References in red further revised due to SME feedback.

NCIE234 Proposed Revision: 11.2.1.3 Interior products will comply with prescribed limits of product emissions.

Table 11.2.1.3 (excluded from excerpt)

VOC emissions are determined by a third-party laboratory that is accredited to ISO/IEC 17025 with the specified test method listed in the scope of its accreditation. VOC emissions results are determined by California Department of Public Health (CDPH) "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," V 1.2, 2017, Standard Private Office Scenario. Alternatively, VOC emission results are determined by UL 2818 "GREENGUARD Certification Program For Chemical Emissions For Building Materials, Finishes And Furnishings, Edition 2, 2022 ~~2821 Ed.1—2021 "GREENGUARD Certification Program Method for Measuring and Evaluating Chemical Emissions from Building Materials, Finishes and Furnishings," March 2013,~~ Table 6.5.1 ~~2~~ Office Model and Section 7.2 ~~34.1~~ Allowable Limits for GREENGUARD Certification Gold.

NCIE234 Reason: Staff Note: UL References in red further revised due to SME feedback.

NCIE235 Proposed Revision: Furniture, casework, cabinets, work stations, and seating all comply with prescribed limits of VOC emissions AND/OR are certified.

Note: certified means compliance with any of the certifications listed per Table 116.2.1.4: Furniture and Furnishings VOC Emissions.

Table 11.2.1.4: Furniture and Furnishings VOC Emissions (excluded from Excerpt)

VOC Emissions Criteria

VOC emissions are determined by a third-party laboratory that is accredited to ISO/IEC 17025:2017 with the specified test method listed in the scope of its accreditation. VOC emissions results are determined by ANSI/BIFMA M7.1-2011(R2016) Standard Test Method for Determining VOC Emissions From Office Furniture Systems, Components and Seating. Alternatively, VOC emission results may be determined by UL 2818 "GREENGUARD Certification Program For Chemical Emissions For Building Materials, Finishes And Furnishings" Edition 2, 2022 Table 6.5.1 Office Model and Section 7.2. ~~2821 Ed.1—2021 "GREENGUARD Certification Program Method for Measuring and Evaluating Chemical Emissions from Building Materials, Finishes and Furnishings," 2013~~ Table ~~2~~ Office Model and Section ~~34.1~~ Allowable Limits for GREENGUARD Gold Certification. To determine acceptability of the emission

results, VOC product emission concentrations are estimated per testing procedures from ANSI/BIFMA e3-2019, 7.6.1, 7.6.2, and 7.6.3.

NCIE235 Reason: Staff Note: UL References in red further revised due to SME feedback.

MOTION: The Motion was made and seconded to accept the proposed revisions for NCIE233a, NCIE233b, NCIE234, and NCIE235.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 8 in favor, 0 opposed, 2 abstained.

Abstain: Jeff Bradley, Max Puchtel

NCIE236

Proposed Revision: 11.2.2A.1 To determine that the indoor air quality is acceptable upon Substantial Completion but prior to occupancy, the buildings indoor environments are tested using ASTM D 5197-16 Standard Test Method for Determination of Formaldehyde and Other Carbonyl Compounds in Air (Active Sampling Methodology) AND one of the following U.S. EPA methods TO-1, TO-11, TO-15, or TO-17 (from the Compendium of Methods for the Determination of Toxic Organic Pollutants in Ambient Air). ~~the U.S. EPA's Compendium of Methods for the Determination of Toxic Organic Pollutants in Ambient Air, TO 1, TO 11, TO 15, TO 17, and/or ASTM D 5197 16 Standard Test Method for Determination of Formaldehyde and Other Carbonyl Compounds in Air (Active Sampler Methodology).~~ The air sampling shall take testing takes place after construction ends and prior to occupancy.

~~6~~4 points

Reason: Feedback: When we voted on this section today it was introduced as a reduction in points. However, I noticed that the text was also changed to add a “/or” after “and” in the listing of test methods. I had a feeling that this was wrong as I had researched this section previously. I have checked my references and adding the “/or” is indeed inappropriate.

The reason is that the EPA methods TO-1, TO-11, TO-15 and TO-17 all test for chlorinated and aromatic hydrocarbons. The ASTM test is for formaldehyde and carbonyl compounds. Therefore, the EPA and ASTM methods test for different classes of chemicals and there is no overlap making the “\or” incorrect. BOTH an EPA method (any of the TO methods) and the ASTM D 5197 are needed to adequately test for all VOCs.

Perhaps the easiest way to address this is to bring it up as new business. In that case, I propose the following wording change for clarification. I have rearranged the wording to clarify that ANY of the EPA TO- methods listed can be used along with the ASTM method.

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 10 in favor, 0 opposed, 0 abstained.

NCIE239**Proposed Revision:** THERMAL COMFORT (~~18~~ 23 POINTS)**Reason:** To reflect previous approved point revision.**MOTION:** The Motion was made and seconded to accept the proposed revision.**Discussion took place on the Motion:**

- There was no discussion.

VOTE: The Motion carries with 10 in favor, 0 opposed, 0 abstained.**202-1**

Public Comment: 11.5.1.2 There is a sound masking system, and a report in accordance with ASTM E1573-18 22 Standard Test Method for Measurement and Reporting of Masking Sound Levels Using A-Weighted and One-Third-Octave-Band Sound Pressure Levels, showing its operation to be in compliance within tolerances of the specified overall masking sound level and spectrum for all occupiable spaces, ~~as defined in the acoustical program where a sound masking system is not contrary to the acoustical goals of the space.~~

2 points or N/ANot applicable for residential units.

~~Design incorporates a sound masking system to provide the specified minimum A-weighted Overall Sound Level (dBA) for each type of space, selected from within the following ranges:~~

~~Offices:~~~~Open: 45-48dBA~~~~Enclosed: 35-45dBA~~~~Meeting/Conference: 30-45dBA~~~~Circulation: 45-48dBA~~~~Healthcare:~~~~Patient room: 40-48dBA~~~~Private offices and exam/treatment room: 35-45dBA~~~~Waiting area: 45-48dBA~~~~Corridor and public spaces: 45-48dBA~~~~Circulation: 45-48dBA~~~~Other:~~~~All other areas where speech privacy, concentration, or sleep/relaxation is required: 35-48 dBA~~

~~11.5.1.2.1 The installed sound masking system is measured in accordance with ASTM E1573-18 Standard Test Method for Measurement and Reporting of Masking Sound Levels Using A-Weighted and One-Third-Octave-Band Sound Pressure Levels to determine compliance with specified performance requirements, as follows:~~

~~The measured overall level is within ± 0.5 dBA of that specified.~~

~~The measured spectrum conforms to the National Research Council's SPMSoft Optimum Masking frequency range and 1/3 octave band levels, or the project acoustician's specified 1/3 octave band levels, within ± 2.0 dB.~~

~~Maximum = 6 points~~

~~Four points are earned for $\geq 80\%$ to $\leq 100\%$ of floor area of listed room types using sound masking.~~

~~Three points are earned for $\geq 50\%$ to $< 80\%$ of floor area of listed room types using sound masking.~~

~~Two points are earned for $\geq 25\%$ to $< 50\%$ of floor area of listed room types using sound masking.~~

~~One point is earned for $\geq 10\%$ to $< 25\%$ of floor area of listed room types using sound masking.~~

~~No points are earned if $< 10\%$ of floor area of listed room types use sound masking.~~

~~Two points are earned for 11.5.1.2.1.~~

Reason: Strike the entirety of these two sections and replace with the credit language from Green Globes Existing Buildings (as updated for 2024).

The complete text of these two sections omitted here for brevity in the form.

The approach to earning points differs for the sound masking credits in NC versus EB. There is no justifiable reason for this difference and the two should be aligned. The credit language in EB is advantageous.

In EB, there are three points available. These are awarded only upon providing a masking system in areas in accordance with an acoustical design plan ('program') and also providing legitimately tested reporting of compliance with specifications.

In NC, there are six points available, however these are awarded differently - and illogically. In 6.5.1.2, up to four points are awarded based on the percentage of a space covered by the masking system. This is illogical, as the amount of space with a masking system should be driven by the space type and acoustical program. Further, these coverage points are awarded regardless of any tested performance of the system. A system could be both improperly engineered and adjusted, but still earn up to 67% of the available points based solely on physical presence in the space.

In 6.5.1.2.1, just two points are awarded for acceptable demonstration of performance to specifications. It is only upon testing that it can be verified that the masking system contributes to the acoustical performance of the space as specified. Note that the requirements for conformity in the current version of NC are identical to EB.

The credit language in NC should be duplicated from EB to better align the application of sound masking to project needs and to award credits only upon demonstration of performance.

The suggested modification also results in shorter credit language.

MOTION: The Motion was made and seconded to accept the proposed response.

Discussion took place on the Motion:

- An interested party stated that he is a member of the IE Subcommittee and noted concern that the points being reduced is offensive and that acoustics is a very important topic.
- It was argued that past volunteers made certain demands so that it can be assessed in buildings, and it wouldn't make sense to revise the criteria in this way.
- It was noted that this public comment is hoping to make the topic more adoptable. It was argued that it's great to have a perfect standard, but it needs to be adoptable in the market so that society can benefit from it.
- There was discussion on the history of revising this topic, as well as the Acoustics Comfort Section.

VOTE: The Motion fails with 1 in favor, 4 opposed, 5 abstained.

Opposed: Ashley Langenfeld, Larry Eisenberg, Mike Cudahy, Jane Rohde

Abstain: Jeff Bradley, Karen Butler, John Mullen, Max Puchtel, Stephen Szoke

MOTION: The Motion was made and seconded to send the public comment back to subcommittee for further review.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 8 in favor, 1 opposed, 1 abstained.

Opposed: Mike Lehman

Abstain: Jeff Bradley

The Secretariat noted that Comment, 202-2 is tied to 202-1 and will be sent back to Subcommittee for further review as well.

NCIE227, NCIE228, NCIE229

NCIE227 Proposed Revision: ~~11.5.2.4 Performance Ratings~~

~~Path A or B~~

~~Two paths are available for field testing.~~

~~• 11.5.2.4A Path A: Room Design Performance Ratings: 4 points~~

~~OR~~

~~• 11.5.2.4B Path B: Space Performance Ratings: 4 points~~

~~Points cannot be combined between paths. Select one of the paths below.~~

NCIE228 Proposed Revision: ~~11.5.2.4A PATH A: ROOM DESIGN PERFORMANCE RATINGS~~

~~11.5.2.4A.1 Field testing of room design performance ratings in 11.5.2.1, quantified by either Noise Insulation Class (NIC) or Apparent Sound Transmission Class (ASTC), comply within 5 points in accordance with ASTM E336-20 Standard Test Method for Measurement of Airborne Sound Attenuation between Rooms in Buildings, measured after construction but prior to occupancy.~~

~~Maximum = 4 points~~

- ~~• One point is earned if $\geq 10\%$ of different sound rated assemblies' performance ratings comply with designed composite STC 45 rating or greater of the room or adjacency.~~
- ~~• One point is earned if $\geq 10\%$ of different sound rated assemblies' performance ratings comply with designed composite STC 50 rating or greater of the room or adjacency. If not applicable, the additional point is earned if the criteria for STC 45 is met.~~
- ~~• One point is earned if $\geq 10\%$ of different sound rated assemblies' performance ratings comply with designed composite STC 55 rating or greater of the room or adjacency. If not applicable, the additional point is earned if the criteria for STC 50 is met.~~
- ~~• One point is earned if $\geq 10\%$ of different sound rated assemblies' performance ratings comply with designed composite STC 60 rating or greater of the room or adjacency. If not applicable, the additional point is earned if the criteria for STC 55 is met.~~

~~OR~~

NCIE229 Proposed Revision: 11.5.2.4B PATH B: SPACE PERFORMANCE RATINGS

11.5.2.4B.1 Field-testing of adjacent spaces comply with criteria limits in 11.5.2.1, measured after construction but prior to occupancy, in accordance with the following as applicable:

- For adjacencies of mechanical, electrical and plumbing (MEP) and heating, ventilation and air-conditioning (HVAC) rooms:
 - o ASTM E336-20 Standard Test Method for Measurement of Airborne Sound Attenuation between Rooms in Buildings
 - For spaces where speech privacy is required:
 - o ASTM E2638-10 Standard Test Method for Objective Measurement of the Speech Privacy Provided by a Closed Room
 - o ASTM E1130-16 Standard Test Method for Objective Measurement of Speech Privacy in Open Plan Spaces Using Articulation Index

~~Maximum = 4~~ 2 points

- ~~• Four points are earned if $\geq 15\%$ of each different types of space comply with speech privacy criteria.~~
- ~~• Three points are earned if $\geq 10\%$ to $< 15\%$ of each different types of space comply with speech privacy criteria.~~
- ~~• Two points are earned if $\geq 5\%$ to $< 10\%$ of each different types of space comply with speech privacy criteria.~~
- Two points ~~are~~ is earned if $\geq 5\%$ of MEP and HVAC rooms' adjacencies performance ratings comply with designed composite Sound Transmission Class rating. ~~If not applicable, the point is earned.~~
- No points are earned if $< 5\%$ of each different types of space do not comply with speech privacy criteria or if $< 5\%$ of MEP and HVAC adjacencies' performance ratings do not comply with design composite STC ratings.

Discussion took place before the Motion:

- It was noted that we need to make the standard as best as possible, and not focus on the points. It was argued that the criteria changes are good and should be adopted.

MOTION: The Motion was made and seconded to accept the proposed revisions, NCIE227 and NCIE228, and reject NCIE229.

Discussion took place on the Motion:

- There was discussion on simplifying the criteria and whether removing Path A is necessary.
- It was argued that the points should not be reduced in this section because it is important for the occupant's health.

VOTE: The Motion carries with 6 in favor, 0 opposed, 4 abstained.

Abstain: Ashley Langenfeld, Karen Butler, John Mullen, Max Puchtel

NCIE230

Proposed Revision: 11.5.3.1 Design of spaces complies with the maximum reverberation time (T60) criteria from Sections 801.3.3 Acoustical Control and 801.3.3.4 Interior Sound Reverberation in the 2018 International Green Construction Code (IgCC).

For specialized spaces not included in the above references the design team shall submit evidence of compliance. Spaces may include but are not limited to the following: community centers, theatres, music halls, studios, sensory rooms, supportive accessibility spaces.

~~Maximum = 4 \geq points or N/A~~

~~• Four points are earned for $\geq 80\%$ to $\leq 100\%$ of listed spaces.~~

~~• Three points are earned for $\geq 50\%$ to $< 80\%$ of listed spaces.~~

• Two points are earned for $\geq 25\%$ to $< 50\%$ of listed spaces.

• No points are earned for $< 25\%$.

• Not applicable for Multi-Unit Residential Buildings (MURBs).

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- It was argued that this criterion should not be reduced in points.

VOTE: The Motion fails with 3 in favor, 3 opposed, 4 abstained.

Opposed: Ashley Langenfeld, Jane Rohde, Mike Lehman

Abstain: Karen Butler, John Mullen, Max Puchtel, Steve Szoke

MOTION: The Motion was made and seconded to send the revision back to subcommittee for further review.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 8 in favor, 2 opposed, 0 abstained.

Opposed: Jeff Bradley, Mike Lehman

NCIE231, NCIE232

NCIE231 Proposed Revision: 11.5.1.1 Design complies with noise limit criteria, quantified by either Noise Criterion (NC) or A-weighted Overall Sound Level (dBA)/C-weighted Overall Sound Level (dBC),

as follows:

- Healthcare spaces noise limit criteria in accordance with one of the following as applicable:
 - o ~~2018~~ 2022 FGI Guidelines for Design and Construction of Hospitals
 - o ~~2018~~ 2022 FGI Guidelines for Design and Construction of Outpatient Facilities
 - o ~~2018~~ 2022 FGI Guidelines for Design and Construction of Residential Health, Care, and Support Facilities
 - Educational spaces noise limit criteria in accordance with the following:
 - o ANSI S12.60 Series: Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools
 - All other spaces noise limit criteria in accordance with the following:
 - o Table 1 Design Guidelines for HVAC-Related Background Sound in Rooms in Chapter 49. Noise and Vibration Control of the 2019 ASHRAE Applications Handbook
 - o Informative Annex C – Recommended noise level specifications for various occupied activity areas of ANSI/ASA S12.2-2019: Criteria For Evaluating Room Noise.
- 11.5.1.1.1 Verification of building-related systems', services' and utilities' noise levels comply with noise limit criteria in 11.5.1.1, measured after construction but prior to occupancy, using a Type I or Type II sound level meter.
- 11.5.1.1.2 Assessment of transient noise shall be evaluated, after construction but prior to occupancy, using appropriate metrics as defined in one of the following:
- Chapter 49. Noise and Vibration Control of the 2019 ASHRAE Applications Handbook
 - o Table 1 Guidelines for HVAC-Related Background Sound in Rooms (with footnote c)
 - o Table 5 Plumbing Noise Levels
 - 2018 International Green Construction Code (IgCC)
 - o Table 8.3.3.2 Maximum Interior Background Sound Pressure Levels from Building Systems and Exterior Sound Sources
 - ANSI/ASA S12.2-2019: Criteria For Evaluating Room Noise
 - o Section 5.3.3 Screening for Surging or Large Random Fluctuations
 - ANSI/ASA S12.60-2010/Part 1 American National Standard Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools, Part 1: Permanent Schools
 - o Section 5.2.2 (citing ANSI/ASA S1.13 Measuring Sound Pressure Levels in Air)
Maximum = 6 points
 - One point is earned for establishing noise limit criteria for all listed spaces.
- AND
- Three points are earned for validating compliance with a Noise Assessment of noise limit criteria for $\geq 75\%$ to $\leq 100\%$ of listed spaces.
 - Two points are earned for validating compliance with a Noise Assessment of noise limit criteria for $\geq 50\%$ to $< 75\%$ of listed spaces.
 - One point is earned for validating compliance with a Noise Assessment of noise limit criteria for $\geq 10\%$ to $< 50\%$ of listed spaces.
 - No points are earned for validating compliance with a Noise Assessment of noise limit criteria for $< 10\%$ of listed spaces.

- One point is earned for 11.5.1.1.1.
- One point is earned 11.5.1.1.2.

NCIE232 Proposed Revision: 11.5.2.1 Design complies with minimum composite Sound Transmission Class ratings of rooms, as follows:

- Healthcare spaces, one of the following as applicable:
 - o ~~2018~~ 2022 FGI Guidelines for Design and Construction of Hospitals
 - o ~~2018~~ 2022 FGI Guidelines for Design and Construction of Outpatient Facilities
 - o ~~2018~~ 2022 FGI Guidelines for Design and Construction of Residential Health, Care, and Support Facilities
- Educational spaces:
 - o ANSI S12.60 Series: Acoustical Performance Criteria, Design Requirements, And Guidelines For Schools
- Other spaces:
 - o Table 801.3.3.3 Minimum Sound & Impact Sound Ratings of the 2018 International Green Construction Code (IgCC).

OR

Design complies with minimum composite Sound Transmission Class ratings calculated to meet the noise limit criteria or 5 points less than the masking sound levels for spaces. For spaces requiring speech privacy, the minimum composite Sound Transmission Class ratings is set to the required “Level Difference” (as in ASTM E2638) or “Level Reduction” (as in ASTM E1130) to provide the required level of speech privacy in accordance with one of the following:

- Speech Privacy Class values of 70 or greater, as in TABLE X2.1 Interpreting SPC: Descriptions of the Likelihood of Speech Being Audible or Intelligible for Various Ranges of SPC, Based on Speech Levels in Meeting Rooms and Offices in ASTM E2638-10 Standard Test Method for Objective Measurement of the Speech Privacy Provided by a Closed Room
- Articulation Index values of 0.30 or less, as in Appendix X.1 RELATIONSHIP OF ARTICULATION INDEX TO SPEECH PRIVACY in ASTM E1130-16 Standard Test Method for Objective Measurement of Speech Privacy in Open Plan Spaces Using Articulation Index

Maximum = 4 points

- Four points are earned for $\geq 80\%$ to $\leq 100\%$ of listed room types.
- Three points are earned for $\geq 50\%$ to $< 80\%$ of listed room types.
- Two points are earned for $\geq 25\%$ to $< 50\%$ of listed room types.
- No points are earned for $< 25\%$ of listed room types.

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 9 in favor, 0 opposed, 1 abstained.

Abstain: Jeff Bradley

Ashley Langenfeld left the meeting.

NCIE237, NCIE238

NCIE237 Proposed Revision: • Three points are earned for ~~validating~~ assessing compliance with a Noise Assessment of noise limit criteria for $\geq 75\%$ to $\leq 100\%$ of listed spaces.

- Two points are earned for ~~validating~~ assessing compliance with a Noise Assessment of noise limit criteria for $\geq 50\%$ to $< 75\%$ of listed spaces.
- One point is earned for ~~validating~~ assessing compliance with a Noise Assessment of noise limit criteria for $\geq 10\%$ to $< 50\%$ of listed spaces.
- No points are earned for ~~validating~~ assessing compliance with a Noise Assessment of noise limit criteria for $< 10\%$ of listed spaces.

NCIE237 Reason: Word change

NCIE238 Proposed Revision: 11.5.1.1.1 ~~Verification~~ Evaluation of building-related systems', services' and utilities' noise levels comply with noise limit criteria in 116.5.1.1, measured after construction but prior to occupancy, using a Type I or Type II sound level meter.

NCIE238 Reason: Word change

MOTION: The Motion was made and seconded to accept the proposed revisions, NCIE237, NCIE238.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 9 in favor, 0 opposed, 0 abstained.

Water Public Comment Review

The Secretariat reviewed each proposed revision before a motion was made.

NCWater-203

Proposed Revision: Maximum = 4 points or N/A

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 9 in favor, 0 opposed, 0 abstained.

NCWater-205

Proposed Revision: 9.3.2.1 Hot Water Volume: Conserve energy and water by reducing hot water volume to all to sinks and showers by designing efficient hot water delivery piping systems to one of the following:

- A maximum of 48 oz. from a water heater ~~AND/OR~~ a maximum of 2024oz from a hot water recirculation system or temperature maintenance cable similar hot water line;

OR

- A maximum of 64 oz. from a water heater ~~AND/OR~~ a maximum of 24oz from a hot water recirculation system or temperature maintenance cable similar hot water line;

OR

- A maximum of 96 oz. from a water heater ~~AND/OR~~ a maximum of 36oz from a hot water recirculation system or temperature maintenance cable similar hot water line.
~~Reduce hot water piping volume to all lavatory sinks, kitchen sinks, and showers.~~

Maximum = 3 points

- Three points are earned where there is a maximum of 48 oz. from a water heater ~~AND/OR~~ a maximum of ~~2024~~oz. from a hot water recirculation system or temperature maintenance cable similar hot water line.
- Two points are earned where there is a maximum of 64 oz. from a water heater ~~AND/OR~~ a maximum of 24 oz. from a hot water recirculation system or temperature maintenance cable similar hot water line.
- One point is earned where there is a maximum of 96 oz. from a water heater ~~AND/OR~~ a maximum of 36 oz. from a hot water recirculation system or temperature maintenance cable similar hot water line.

Reason: Assessor Feedback: The criteria identifies three conditions. In each there is an “AND/OR”. Could it be that:

the first should be “A max of 48 . . . AND a max of 24”

the second should be “A max of 64 . . . AND a max of 24”

the third should be “A max of 96 . . . OR a max of 36”

It depends on the intent of the committee, however as it stands it appears if “OR a max of 24 oz” is taken then the points scored can be either 3 or 2. I appreciate your reviewing this in case I have overlooked or misinterpreted something.

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 9 in favor, 0 opposed, 0 abstained.

NCWater-220

Proposed Revision: 9.3.2.2 Reduce hot water waste to lavatory sinks, kitchen sinks, and showers by use of hot water recirculating systems that also use occupant sensor-controlled faucets or temperature-actuated flow-reduction devices at the hot water fixtures, occupant controls, and thermocouples. ~~These provisions shall reduce waiting times and water purged down the drain during time to temperature intervals.~~

Note: Continuously operating recirculation systems and recirculation systems on timers are not eligible for this credit alone. The additional conservation components listed above must be paired with the hot water recirculation systems for eligibility.

Maximum = 3 points

- Three points are earned where ~~>90~~100% of the hot water fixtures meet these provisions ~~listed are served by a hot water demand system.~~

- Two points are earned where $\geq 75\%$ to ~~$\leq 90\%$~~ $< 100\%$ of the hot water fixtures meet these provisions listed are served by a hot water demand system.
- One point is earned where $\geq 50\%$ to $< 75\%$ of the hot water fixtures meet these provisions.
- No points are earned where ~~$< 50\%$~~ $< 75\%$ of the hot water fixtures meet these provisions listed are served by a hot water demand system.

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 9 in favor, 0 opposed, 0 abstained.

NCWater-218

Proposed Revision: 4.3.2.3 Hot water recirculation systems are classified as a system of hot water supply and return piping with shutoff valves, balancing valves, circulating pumps and a method of controlling the circulating system. Hot water recirculation improvements have been shown to affect energy use and water quality.

Maximum = 3 Points

- Three points are earned where the circulating pump(s) are continuously operational. Recommended for healthcare facilities, hotels and/or motels.
- Two points are earned where the circulating pump(s) are programed for intermittent operation with on-demand activation or time clocks combined with temperature sensing capabilities.
- No points are earned if temperature maintenance cable is installed in lieu of hot water recirculation.

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 9 in favor, 0 opposed, 0 abstained.

NCWater-221

Proposed Revision: BOILERS AND HOT WATER SYSTEMS (9-12 POINTS)

Reason: Updating Header for point revision.

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 9 in favor, 0 opposed, 0 abstained.

NCWater-202

Proposed Revision: 9.4.4 Water Features and Pools

Two paths are provided for assessing a project's water features and/or pools.

- 9.4.4A Path A: No water feature and pool are installed: 6 points

OR

- 9.4.4B Path B: A water feature and/or pool is installed: up to 6 points
Points cannot be combined between paths. Select one of the paths below.

9.4.4A PATH A: NO WATER FEATURE AND POOL ARE INSTALLED

9.4.4A.1 No water feature and pool are installed.

6 points

OR

9.4.4B- PATH B: WATER FEATURES AND/OR POOLS IS INSTALLED

9.4.4B.1 Water features re-circulate water for reuse within the system and have a leak/water loss detection system.

1 point or N/A

~~• Not applicable where there are no water features.~~

9.4.4B.2 Water features use alternate water sources of non-potable water for makeup water.

1 point or N/A

~~• Not applicable where there are no water features.~~

• Not applicable where prohibited by the authority having jurisdiction.

9.4.4B.3 Pools and spas or water features have an evaporation reduction/mitigation feature (e.g., Pool covers, storage of feature water in underground tanks, controls to curtail use during high loss periods, etc.).

1 point

~~• Not applicable where there are no pools, spas, or water features.~~

9.4.4B.4 Equip Pools and spas with splash out troughs to recover water.

1 point

~~• Not applicable where there are no pools or spas.~~

9.4.4B.5 Pools and spa backwash water is treated and recovered for appropriate reclamation, recycling, AND/OR irrigation.

1 point

~~• Not applicable where there are no pools or spas.~~

9.4.4B.6 Use regenerative sorptive media (not conventional filtration or standard sand-based filtration) or cartridge filtration for pools and spas.

1 point

~~• Not applicable where there are no pools or spas.~~

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 9 in favor, 0 opposed, 0 abstained.

NCWater-201

Proposed Revision: 9.6.1.2 One of the following systems is at least 80% pre-plumbed (pipes and valves) with a suitable area designated for a collection tank during construction:

- Graywater;
- Reclaimed water;
- Recycled water; AND/OR
- ~~Stormwater; AND/OR~~
- Rainwater premise distribution.

Pre-plumbed systems are marked or otherwise identified as such.

2 points

Reason: Assessor Feedback: I do know what this criteria means as all piping is at least 80% during construction. I can understand pre-plumbed for graywater (dual sanitary) or reclaimed water or recycled water, but do not know what the intent is for stormwater or rainwater. I have a project where they are answering “yes” to 80% pre-plumbed for stormwater and rainwater which technically true but then ALL projects are built this way. I am suggesting it is too easy for stormwater and rainwater and should be removed . . . if I am understanding it correctly. I believe some clarification as to the precise intention is needed from the subcommittee that developed the criteria.

Assessor Feedback: This could be saved for the public comment period, but this criteria should have a N/A option for the client. From my perspective, other than possibility a graywater system this would pretty much never happen. Seems like a waste of 2 good points.

MOTION: The Motion was made and seconded to accept the proposed revision.

Discussion took place on the Motion:

- There was no discussion.

VOTE: The Motion carries with 9 in favor, 0 opposed, 0 abstained.

Public Participation

An interested party noted his appreciation for being able to participate in the discussion.

New Business

There was no new business.

Review Schedule

GBI staff reminded attendees that the next Consensus Body for New Construction meeting is on Friday, April 5, 2024.

MOTION: The motion was made, seconded, and carried unanimously to adjourn.

Meeting adjourned at 2:59 PM EST.