

Minutes
 GBI Consensus Body Meeting #17
 BSR/GBI 01-201X
 Webinar
 Monday, June 6th, 2016 1:00 PM ET to 3:00 PM ET

Attendance:

No	Name	Organization(s)	5-9-16	5-25-16	6-6-16	6-22-16	
1	Gregg Bergmiller	S/L/A/M Collaborative	X	X	X (by proxy)		
2	Paul Bertram	Kingspan Insulated Panels, Inc.	Absent	X	Absent		
3	Allan Bilka	International Code Council	X	X	X		
4	Jeff Bradley	American Wood Council	X	X	X		
5	William Carroll	American Chemistry Council	Absent	X	X		
6	Chris Dixon	NBBJ (rep. self)	X	X	X		
7	Nicole Dovel-Moore	CTA Architects Engineers	X	X	X		
8	Amber Dzikowicz	NSF International	X	Absent	X		
9	David Eldridge	Grumman/Butkus Assoc.	X(by proxy)	X	X		
10	William Freeman	Resilient Floor Covering Institute	X	X(by proxy)	X		
11	Susan Gitlin	U.S. EPA	X	X(by proxy)	Absent		
12	Don Horn	GSA	X	X	Absent		
13	Josh Jacobs	UL Environment	Absent	Absent	X		
14	Greg Johnson	Johnson Consulting Services, Greenscape Alliance	X	X	X		
15	Karen Joslin		X	X	X		
	Leslie Kahn	Admin. Office of the U.S. Courts	Resigned				
16	Malee Kaolawanich	NIH (rep. self)	X	Absent	Absent		
17	Rachel Minnery	AIA	X	X	X		
18	Charles Kibert	University of Florida	X	X	X		
19	Gary Keclik	Keclik Associates	Absent	X	X (by		

					proxy)		
20	John Koeller	Alliance for Water Efficiency	X	X	Resigned		
21	Jennifer Kowalonek	Alfred Benesch & Company	X	Absent	Absent		
23	Tien Peng	National Ready Mix Concrete Assn.	X	X	Absent		
	Bernadette Reyes	Clark Construction Group	Resigned				
	Angela Rivera	URS Corporation (rep. self)	Resigned				
24	Jane Rohde	JSR Assoc. Inc., Vinyl Institute	X(by proxy)	X	X		
25	Gord Shymko	G.F. Shymko & Associates, Inc.	X	X	X		
	Julie Sobelman	Independent Consultant	Resigned				
26	Kent Sovocool	Southern Nevada Water Authority	X(by proxy)	X	X		
27	Steve Strawn	JELD-WEN	Absent	Absent	Absent		
28	George Thompson	Chemical Compliance Systems, Inc.	X	X	X		
29	Angela Tin	American Lung Assn.	Absent	X	Absent		
30	Douglas Tucker	Misubishi Electric Cooling & Heating	X	X	X		
31	Erika Winters Downey	American Institute of Steel Construction	X	X	X		
Voting Alternates							
	Abby Brokaw	American Lung Assn. (voting Alternate for Angela Tin)		X			
	Paul Karrer	AIA (Alternate for Rachel Minnery)					
	Bill Hoffman	UL Environment (Voting Alternate for Josh Jacobs)					
	Lance Davis	GSA (Voting Alternate for Don Horn)					
	D'Lane Wisner	D'Lane Wisner (Voting Alternate					

		for William Carroll)					
	John Cross	American Institute of Steel Construction (Voting Alternate for Erika Winters-Downey)					
TOTALS			24/31	25/31	21/30		
Visitors							
	Martha VanGeem	Self (Principal Engineer)	X	X	X		
	Kyle Thompson	IAPMO	X	X	X		
	Kelly Scanlon	U.S. EPA					
	Heather Dylla	National Asphalt Pavement Assn.	X				
	Wes Sullens	Stopwaste.org	X				
	Paula Melton	BuildingGreen, Ince	X		X		
	Mike Cudahy	Plastic Pipe and Fitting Association		X	X		
	Jay Thomas	Sika			X		
	Mike Anthony	University of Michigan			X		
	Thomas Pape	Alliance for Water Efficiency			X		
	Christine Fisher	University of Michigan			X		
	Christian Taber	Big Ass Solutions			X		
	Melissa Wackerle	American Institute of Architects			X		
Staff/Consultants							
	Wayne Trusty	Chair	Resigned				
	Michael Lehman	Chair	X	X	X		
	Vicki Worden	Executive Director, GBI			X		
	Emily Randolph	Secretariat Asst., GBI	X	X	X		
	Micah Thomas	Staff, GBI		X			
	Maria Woodbury	Secretariat, GBI	X	X	X		
	Chelsea	Staff, GBI	X	X	X		

	Amaio						
	Kim Goldsworthy	Roberts-Rules Consulting	X	X	X		

Monday, June 6, 2016

Welcome & Roll Call

Secretariat, Maria Woodbury welcomed participants and conducted roll call by self-introductions to establish quorum. The anti-trust statement was reviewed and participants were requested to comply with it fully.

Woodbury reviewed the participation options, stating that while observers are welcome to participate in the discussion, only Consensus Body Members are able to vote. Participants were reminded to raise hands should they desire to add something new to the discussion and staff would then call on them in order.

At this meeting, no members voted using a voting alternate. There were 2 members voting via proxy (David Eldridge for Gary Keclik and Greg Johnson for Gregg Bergmiller).

Woodbury informed participants that the call was being recorded for the purpose of minute taking and the recording would not be shared outside of GBI Staff. No objection was raised to the recording of the call.

Woodbury reviewed the membership roster, stating that the Alliance for Water Efficiency would like to change their representation John Koeller has resigned and they would like Thomas Pape to be their representative working of the Standard. Woodbury informed members that a letter ballot would go out shortly to vote on the appointment of Thomas Pape. There were no other changes to the roster.

Administrative Items

Chair Mike Lehman gave his opening comments, noting that this meeting would last only two hours. Lehman stated that he hoped the two hour model would allow participants to focus and move through each comment more quickly.

Lehman requested that Subcommittee Chairs provide a brief background on each comment and then make the motion and call for second and discussion. Lehman reminded participants that the discussion should focus on the comment at hand and new ideas should be saved for discussion of New Business at the end of the meeting.

GBI Executive Director, Vicki Worden expressed her appreciation for all the hard work being done by the Consensus Body and Subcommittees. Worden stated that there has been some concern raised over the tone that some of these meetings have taken on, which has made some observers feel uncomfortable participating. Worden reminded participants to be conscious of keeping discourse professional and welcoming and to allow all opinions to be heard.

Worden announced that an official Code of Conduct will be drafted for use in all GBI meeting. Worden stated that all participants are welcome to review the draft Code of Conduct and offer input. Anyone interested in being involved in the drafting of the Code of Contact may contact Vicki (vicki@thegbi.org).

The agenda was reviewed and no changes were requested by the Consensus Body. It was noted that the order of the comments in the packet had been changed to coincide with the order of the comments on the agenda.

MOTION: A motion was made, seconded, and carried to approve the minutes from the previous Consensus Body Meeting on May 25th, 2016.

None Opposed

Abstained: Josh Jacobs

Lehman updated participants on the status of the Meeting #14 minutes, stating that the edits are still being finalized and the vote will be postponed until the next meeting.

Discussion of public comments

Subcommittee Reports

Materials

Materials Chair, Charles Kibert, presented the proposed responses to comments made on Materials Section 10.3 Risk Assessment.

- **48 – 4. Substantive. 10.3.1.1**
 - **Comment:** The standard as written requires products that serve both interior and exterior functions such as windows and doors to complete two evaluations, whereas products intended for either interior or exterior function only have to complete one evaluation. The standard needs to be specific that only one evaluation is required, and leave it to the manufacturer to declare. Or the standard should award double points if both an interior and exterior evaluation is completed.
 - **Reason:** Window and door manufacturers must complete both interior and exterior evaluations to comply with the standard as written, so this puts an unfair burden on those product manufacturers compared with the burden to evaluate a product that only has one intended functional use. Credit awards should be uniform for each product category evaluated. So a window or door, if evaluated for both interior and exterior criteria should be awarded credits for each evaluation.
 - **Proposed Response:** Accept. Modified the text to minimize awarding multiple points for the same types of products. “Points are awarded for discrete products with different functional uses and not variations of the same product, unless the manufacturers show substantial difference between the chemical constituents or components. Where a product has both interior and exterior exposure, the screening-level risk assessment is required for the interior exposure only.”
 - **Subcommittee Vote:** 10 in favor, 2 abstained

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

Discussion took place on the motion:

- Clarification was requested regarding which section was being referred to. It was clarified that the text would be added to 10.3 in the left-hand column.

VOTE: The motion carried with 20 in favor, none opposed, and none abstained.

None Opposed

None Abstained

- **30 – 1. Substantive. 10.3**

- **Comment:** Consider including the option to allow other appropriate consensus-based ANSI approved risk-based standards.
- **Reason:** Hexion Inc. fully supports transparency in reporting by the use of NSF/GCI/ANSI 355: Greener Chemicals and Processes Information Standard. However, should not be limited, but also allow other appropriate consensus-based ANSI approved risk-based standards.
- **Proposed Response:** Accept. The language modified in accordance with other suggestions addresses the comment.
- **Subcommittee Vote:** Unanimously in favor

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

Discussion took place on the motion:

- It was clarified that this language does indeed already covers what's being asked by the commenter.

VOTE: The motion carried with 17 in favor, none opposed, and none abstained.

None Opposed

None Abstained

- **48 – 6. Substantive. 10.3.1.1**

- **Comment:** Points should be awarded for discrete and different products and not variations of the same functional product, unless the manufacturers show substantial differences between the ingredients or components.
- **Reason:** If a product manufacturer evaluates a window, and the building contains 15 different window sizes with different SKU numbers but all the windows are made from essentially the same materials, or different colors of the same materials, then the window category should be allowed only one point. Similar reasoning should be applied to all other product categories, e.g. single electrical receptacles vs. duplex electrical receptacles.
- **Proposed Response:** Accept by adding "Points are awarded for discrete and different products and not variations of the same product, unless the manufacturers show substantial differences between the ingredients or components" above "Product Risk Assessment Reporting."
- **Subcommittee Vote:** 7 in favor, 1 abstained

MOTION: The motion was made and seconded to accept the proposed response. The motion carried with 19 in favor, none opposed, and none abstained.

None Opposed

None Abstained

- **5 – 1. Editorial. 10.3.1.1**

- **Comment:** At least one formulated product or article is selected ~~that is certified in accordance with~~ whose ingredients have been evaluated for the characteristics identified in NSF/GCI/ANSI 355:
- **Reason:** Current language suggests the NSF 355 is the certification tool. NSF 355 specifies a format for reporting data on the characteristics of interest, but doesn't evaluate or certify those data.
- **Proposed Response:** Accept the proposed clarification
- **Subcommittee Vote:** Unanimously in favor

MOTION: The motion was made and seconded to accept the proposed response. The motion carried with 20 in favor, none opposed, and none abstained.

None Opposed

None Abstained

- **41 – 1. Substantive. 10.3.1.1**

- **Comment:** At least one formulated product or article is selected for which X% of the formulation has had individual chemicals ~~that is certified in accordance with NSF/GCI/ANSI 355~~
- **Reason:** Formulated products are not certified to NSF/GCI/ANSI 355. Only individual chemical products are. This is my understanding. One could consult the JC that developed the standard for official clarification.
- **Proposed Response:** Reject. The committee is stipulating that the product risk assessment includes each/every chemical at its percentage in the formulation and has been assessed "in accordance with NSF/GCI/ANSI 355."
- **Subcommittee Vote:** 8 in favor, 1 abstained

MOTION: The motion was made and seconded to accept the proposed response. The motion carried with 19 in favor, none opposed, and none abstained.

None Opposed

None Abstained

- **46 – 1. Substantive. 10.3.1**

- **Comment:** 10.3.1.1 At least one formulated product or article is selected that is certified in accordance with NSF/GCI/ANSI 355: Greener Chemicals and Processes Information Standard or similar standard or program based on the concentration of each constituent within the product, and, as a minimum, the following exposure scenario factors for the intended product use...
- **Reason:** NSF-355 is not what project teams look to when specifying products. There are additional standards and labels being used in the marketplace that conduct risk assessments based on exposure scenarios. For example, Cradle 2 Cradle's Health Methodology uses an informed hazard list to classify certain substances, followed by risk analysis for the final product. Would this type of label not be compliant? Programs like C2C are arguably more rigorous than the NSF document/process outlined in the current draft because they reduce intrinsic

hazard and analyze risk, and are much easier to access for building project teams seeking to certify buildings. I suggest that Green Globes allow other standards or programs that address risk of end-use products (and that also include minimization or avoidance of hazards) to be eligible for this credit. There's a lot more momentum in the industry for products that assess both hazard and risk, and much less confidence and demand for risk-only analyses.

http://www.c2ccertified.org/resource/detail/material_assessment_methodology

- **Proposed Response:** Reject. Cradle to cradle evaluates from a hazard perspective not a risk perspective. The NSF/GCI/ANSI 355 evaluates chemical characteristics utilizing a complete risk assessment approach not a hazard based approach. There's no deselection of chemicals as part of a product evaluation.
- **Subcommittee Vote:** 6 in favor, 2 opposed

MOTION: The motion was made and seconded to accept the recommendation to reject the comment using the proposed response.

Discussion took place on the motion:

- One member stated their satisfaction that this Standard is focusing on risk management and Materials and products that could be a risk.

VOTE: The motion carried with 17 in favor, none opposed, and 3 abstained.

None Opposed

Abstained: Kent Sovocool, Rachel Minnery, Josh Jacobs

- **48 – 5. Substantive. 10.3.1.1**

- **Comment:** At least one *formulated product or article* is selected that ~~is certified~~ has a certified risk evaluation in accordance with
 - 1) the chemical characteristics or endpoints in the NSF/GCI/ANSI 355: Greener Chemicals and Processes Information Standard,
 - 2) based on the product's intended use,
 - 3) concentration of each ingredient within the product, and
 - 4) completion of an authoritative exposure model; including as a minimum the following technically supported and applicable exposure scenario factors for either interior or exterior product categorized products: frequency, duration, amount utilized, ventilation rate, wind speed, and room/space size, or unlimited for unconfined spaces.
- **Reason:** The language as written is ambiguous, since NSF/GCI/ANSI 355 does not have a certification but rather lists chemical end points to be used in a risk evaluation.
 - 1) The chemical characteristics and end points of NSF/GCI/ANSI 355 should serve as the basis for the evaluation. If authoritative and reliable data is not available for all 44 end points, then partial credit shall be applied based on the number of end points characterized, e.g. if 22 endpoints are studied, then the evaluation earns half the allotted credit points;
 - 2) The risk evaluation should be limited to the use phase of the product and not to any hypothetical disaster scenarios, e.g. fire.

3) A de minimus concentration of 1,000 ppm should be allowed for non-functional contaminants, residuals or minor ingredients.

4) As explained in 48 – 5., applicable exposure scenario factors should be applied.

- **Proposed Response:** Accept as modified. Incorporated new language in paragraph form rather than as numbered points and added to following language because “certified” doesn’t clarify the requirement and in this instance does not comply with ISO 17065. “...selected that has complete first, second, or third party screening-level risk assessment in accordance...”
- **Subcommittee Vote:** Unanimously in favor

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

Discussion took place on the motion:

The question was raised whether this change completely reworded the paragraph. It was clarified that the proposed response is incorporating the proposed response in paragraph form rather than a numbered list and will replace the two columns. **VOTE: The motion carried with 19 in favor, none opposed, and 3 abstained.**

None Opposed

Abstained: Josh Jacobs, Nicole Dovel-Moore, Rachel Minnery

- **5 – 2. Editorial. 10.3.1.1**

- **Comment:** . . .Greener Chemicals and Processes Information Standard based on the concentration of each constituent within the product or article, and, as a minimum, the following the magnitude and duration of exposure scenario factors for the under the conditions of intended product use: [delete list of factors]
- **Reason:** Exposure parameters are too specific – tried to make it a bit more flexible and easier to work with.
- **Proposed Response:** Reject. The committee believes that the current listing is appropriate and still allows for additional factors to be considered.
- **Subcommittee Vote:** Unanimously in favor

MOTION: The motion was made and seconded to reject the comment using the proposed response.

Discussion took place on the motion:

- It was stated that the ANSI Standard covers this. The Subcommittee resolved the issues the commenter pointed out in response to other comments and does not feel the need to do anything further.

VOTE: The motion carried with 19 in favor, none opposed, and 3 abstained.

None Opposed

Abstained: Jeff Bradley, Erika Winter-Downey, Amber Dzikowicz

- **48 – 7. Substantive. 10.3.1.1**

- **Comment:** The 67% and 33% language is ambiguous and should be revised to be specific in terms of number of end points studied.
- **Reason:** The language is unclear if the 67% applies to the evaluation of all human health and safety chemical characteristics will only achieve 67% of one point credit. Will the standard allow for a partial or fractional credit, if the product

manufacturer does not complete the ecological risk assessment? Similar reasoning applies to the 33% language as to whether this applies to all the ecological endpoints to receive the 33% credit.

- **Proposed Response:** Accept comment by striking the second and third bullets under risk assessment reporting.
- **Subcommittee Vote:** Unanimously in favor

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

Discussion took place on the motion:

- Clarification was requested regarding what this change is striking out. It was stated that the language has been simplified by removing the second and third bullets to avoid “splitting hairs” and the potential for fractional points.
- One member stated that they preferred that human health risk and ecological risk be evaluated separately. They asked if there was a way to rephrase the language to include these. It was stated that the NSF Standard has three subsets. 1) Human Health 2) Physical Safety and 3) Ecological Impacts. It was clarified that the original version of this section indicated a need to comply with the NSF Standard.
- Concern was raised about losing the ecological aspect of this section. There was disagreement around whether the NSF Standard requires all three sections to be met.

MOTION: The motion was made to postpone the discussion. There was no second to the motion. The motion was withdrawn with no opposition.

AMENDEMENT: The amendment was made and seconded to modify the language as follows: “...risk assessment for human health, safety, and ecological impacts, based upon the...”

AMENDMENT: The amendment was changed and seconded to further change the language as follows: “The results of each screening-level risk assessment for human health, safety and ecological impacts, is required based upon the NSF/GCI/ANSI-355 Chemical Characteristics, and the results are...”

There were no objections to changing the amendment and no objections were raised on the completed amendment.

VOTE: The motion carried with 20 in favor, none opposed, and 1 abstained.

None Opposed

Abstained: Rachel Minnery

Indoor Environmental Quality

IEQ Vice Chair, Chris Dixon, presented the responses prepared for comments made of Indoor Environmental Quality Section 11.2 Source Control.

- **43 – 24. Substantive. 11.2.1.3.**
 - **Comment:** Modify as follows: Concrete, concrete masonry, clay brick, stone, glass and glass block masonry used in floors and wall systems with additional coating are deemed to comply without testing.
 - **Reason:** This was allowed in the previous version and should be allowed here. There are thousands of variations of concrete and masonry systems and there is no need to

test them all since their emissions are negligible. The owner should not have to apply a paint to get the credit.

- **Proposed Response:** Accept as modified. Add “metal, ceramic tile” and change to “without additional coating/sealers.”
- **Subcommittee Vote:** 3 in favor, 2 opposed, none abstained.
- **Note:** Very close vote, others in support of striking.
- **Note:** Staff requests placement guidance

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

Discussion took place on the motion:

- It was requested that staff incorporate the language into the draft Standard. Staff requested guidance and the language was placed within the table under Product Area.
- The question was raised regarding whether this specifies non-structural or structural. It was stated that the distinction was never discussed and that this section of the Standard carried over from the previous version. It was clarified that this section is focused on low-emitting products.
- The question was raised whether the word “sealers” is being used correctly. It was clarified that this is the correct use of “sealers” and that any low-emitting substrates would be included in this.
- It was stated that at present points are awarded if project teams comply with all items. The question was raised whether this is too complicated. It was stated that there is no correlation between points allocated and the amount of low-emitting substrate. This member spoke against incorporating this language without further work to determine how someone would earn points without gaming the system. It was stated that the member’s concerns could be addressed in future comments.

VOTE: The motion carried with 15 in favor, 4 opposed, and 1 abstained.

Opposed: Karen Joslin, Chris Dixon, Jeff Bradley, Erika Winters-Downey

Abstained: Gord Shymko

• **11 – 14. Substantive. 11.2.1.3**

- **Comment:** Consider adding requirements for Composite Wood (particleboard, MDF/HDF): Provide documentation indicating compliance with California Air Resources Board (CARB) Air Toxic Control Measures (ATCM) for composite wood: • Accepted Third Party Certifiers are listed on this CARB website link:
<http://www.arb.ca.gov/toxics/compwood/listoftpcs.htm>
 - List of certified mills are also listed on this CARB website link:
<http://www.arb.ca.gov/toxics/compwood/tpc/listofmills.htm>
 - List of NAF/ULEF mills are listed on this CARB website link:
http://www.arb.ca.gov/toxics/compwood/naf_ulef/listofnaf_ulef.htm
- **Reason:** Adding this clause would clarify requirements for scenarios where composite panels are used on their own, and not as part of an article or finished product which would require other specific testing per the standard.
- **Proposed Response:** Accept using modified language. The commenter agreed that the language was not appropriately worded for the standard.

Table 11.2.1.3: Interior Product VOC Emissions

[Suggestion for modification of Column 2 in Table 11.2.1.3 to additionally require compliance with CARB/ATCM for products contributing to credits for floors/floor coverings, ceiling systems and wall systems]

VOC Emissions Criteria

To determine acceptability of the emission results, VOC building concentrations are estimated for the Standard Private Office Scenario in CDPH Standard Method V1.1 Tables 4.4 and 4.5 and are compared to the maximum allowable concentrations in CDPH Standard Method V1.1, Table 4.1. ~~does~~ Modeled concentrations shall not exceed the maximum allowable concentrations. Additionally, for the floors/floor coverings, ceiling systems and wall systems categories made with nonstructural composite wood and composite wood cores (particleboard, MDF, and hardwood plywood) shall be compliant with the California Air Resources Board Airborne Toxic Control Measure (CARB/ATCM) to control formaldehyde emissions from composite wood (Sections 93120-93120.12, Title 17, California Code of Regulations).

[Documentation requirement for CARB/ATCM – Place as last sentence in Section 11.2.1.3]

For products containing composite wood, provide copies of product labels, chain-of-custody records, or test documentation demonstrating compliance with the CARB/ATCM formaldehyde regulation.

- **Subcommittee Vote:** Unanimously in favor

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

Discussion took place on the motion:

- The question was raised whether this discussion focused on the “chain of custody records”. Concern was raised this was unrealistic. It was clarified that this language comes directly from CARB and it was the opinion of the speaker that this will someday become national compliance law. The initial speaker stated that they had seen the “or” on first read-through and withdrew their concern.
- The suggestion was made to say product documentation rather than test documentation.

AMENDMENT: The amendment was made and seconded to strike “test” from “test documentation” and strike “for the” in front of “floors/floor coverings”. There were no objections to the amendment.

VOTE: The motion carried with 17 in favor, none opposed, and none abstained.

None Opposed

None Abstained

Review of Comment Progress

Secretariat Assistant Emily Randolph reported on the overall progress of the Consensus Body, stating that ten Materials comments and two IEQ comments were reviewed at this call. At this time IEQ is 80% complete and Materials is 53% complete. The Consensus Body has reviewed 64% of the total comments received on the draft Standard.

Review updated Schedule

Woodbury reviewed the upcoming schedule:

- Next Consensus Body meeting: June 22nd, 2016 11:00 AM-1:00 PM ET
- Letter Ballot going out to fill CB vacancies
- Doodle poll for July CB Meeting was sent out June 6th

New Business

Woodbury reminded participants that a Letter Ballot will be sent out to vote on new members for the Consensus Body.

Adjournment:

MOTION: A motion was made, seconded and unanimously carried to adjourn the meeting at 2:59 PM ET.