

Minutes

GBI Consensus Body Meeting #30

BSR/GBI 01-201X

Webinar

Monday, April 10th, from 1:00 PM EST to 4:00 PM EST

Tuesday, April 11th, from 12:00 PM EST to 3:00 PM EST

Attendance:

No	Name	Organization(s)	10-14-16	2-2-17	2-13-17	3-23-17	4-10-17	4-11-17
1	Gregg Bergmiller	S/L/A/M Collaborative	X	X	Absent	X	X	X
2	Paul Bertram	PRB Connect	X	X	X	X	X	X
3	Allan Bilka	International Code Council	Absent	X	X	X	X	X
4	Jeff Bradley	American Wood Council	X	X	X	X	X	X
5	William Carroll	American Chemistry Council	X (by Proxy)	X	X	X	X	Absent
6	John Cross	American Institute of Steel Construction	N/A	N/A	N/A	Absent	X	X
7	Mike Cudahy	Plastic Pipe and Fittings, Association	N/A	N/A	N/A	X	X	X
8	Chris Dixon	NBBJ (rep. self)	X	X	X	X	X	X
9	Nicole Dovel- Moore	CTA Architects Engineers	X	X	X	X	X	X

10	David Eldridge	Grumman/Butkus Assoc.	X (by Proxy)	X	X	X	X	X
11	William Freeman	Resilient Floor Covering Institute	X	Absent	Absent	Absent	Absent	Absent
12	Susan Gitlin	U.S. EPA	X	Absent	X	X	X	X
13	Don Horn	GSA	X	X (by Alternate)	X	X	X	X (on call and by proxy)
14	Josh Jacobs	UL Environment	Absent	Absent	Absent	X	X	X
15	Greg Johnson	Johnson Consulting Services, Greenscape Alliance	X	X	X	X	X	X
16	Karen Joslin	Joslin Consulting	X	X	X	X	X	X
17	Malee Kaolawanich	NIH (rep. self)	Absent	Absent	Absent	Absent	Absent	Absent
18	Rachel Minnery	AIA	Absent	X	Absent	X	X	X (on call and by proxy)
19	Charles Kibert	University of Florida	X	X	X	X (Chair)	X	X (Acting Chair)
20	Gary Keclik	Keclik Associates	X	Absent	X	X	X	X

21	Thomas Pape	Alliance for Water Efficiency	X	Absent	X	X	X	X
22	Tien Peng	National Ready Mix Concrete Assn.	Absent	X	X	X	X	X
23	Jane Rohde	JSR Assoc. Inc., Vinyl Institute	X (by Proxy)	Absent	X (by Proxy)	X	X	X
24	Gord Shymko	G.F. Shymko & Associates, Inc.	X	X	Absent	X	X	X
25	Kent Sovocool	Southern Nevada Water Authority	X	X	X	Absent	X	X
26	Steve Strawn	JELD-WEN	Absent	Absent	Absent	Absent	Absent	Absent
27	George Thompson	Chemical Compliance Systems, Inc.	X	X	X	X	Absent	X
28	Angela Tin	American Lung Assn.	Absent	X	X	X	X	X
29	Douglas Tucker	Misubishi Electric Cooling & Heating	Absent	Absent	X	X	X	X
Voting Alternates								
	Abby Brokaw	American Lung Assn. (voting						

		Alternate for Angela Tin)						
	Paul Karrer	AIA (Alternate for Rachel Minnery)						
	Bill Hoffman	UL Environment (Voting Alternate for Josh Jacobs)						
	Lance Davis	GSA (Voting Alternate for Don Horn)		X				
	D’Lane Wisner	D’Lane Wisner (Voting Alternate for William Carroll)						
TOTALS			19/29	18/27	19/27	23/29	25/29	25/29
Visitors								
	Martha VanGeem	Self (Principal Engineer)	X	X		X		
	Dave Panning	BIFMA	X	X				
	Candy McNamee	NCI Group		X				
	Ric Doedens	Logison		X	X			

	Lauren Graham	Lawbc			X			
	Jiri Skopek	JLL			X			
Staff/Consultants								
	Michael Lehman	Chair	X	X	X	Absent	X	X (as participa nt)
	Vicki Worden	Executive Director, GBI						
	Emily Randolph	Secretariat Asst., GBI	X	X	X	X	X	X
	Micah Thomas	Staff, GBI		X	X	X	X	X
	Maria Woodbury	Secretariat, GBI	X	X	X	X	X	X
	Kim Goldsworthy	Roberts-Rules Consulting	X	X	X	X	X	X

Monday, April 10, 2017

Welcome & Roll Call

Secretariat, Maria Woodbury welcomed participants and conducted roll call to establish quorum. The anti-trust statement and code of conduct were reviewed and participants were requested to comply with both fully.

Woodbury reminded members that all are welcome to participate in the discussion provided participants raise their hands. Hands will be called on first come-first serve.

At this meeting no members voted using voting alternates and three members voted using a proxy (Rachel Minnery for Tien Peng on the 10th, Tien Peng for Rachel Minnery on the 11th, and Susan Gitlin for Don Horn after 2:00 PM ET on the 11th).

Administrative Items

Chair Mike Lehman made his opening comments thanking everyone for their time, expertise. Lehman described the agenda, explaining the group will try to go through the Materials, Indoor Environment, Energy and then the Points Task Group. Lehman reminded members that discussion will be lead in the order hands are raised.

Lehman asked if there were any objections to approving the minutes from Meeting #29 on March 23rd, 2017.

There were no objections. The Minutes were approved.

Second Public Comment Period

Materials

Presented by Subcommittee Chair, Charles Kibert

13 – 17. Substantive. 5.1:

- **Comment:** [total material value] Sustainable Attribute %= Sum for all materials: (Portion of the Material with the attribute x material cost)/(Total Material Value)
- **Reason:** This term is no longer used. It seems that “total” needs to be reinstated before “material value” in 10.4.1 as in a previous comment. Then retain this term.
- **Recommended Response (From Subcommittee):** Thank you for your comment. Your comment has been rejected for the following reason: this comment has been addressed in response to comment 13 – 16.

13 – 16. Substantive. 10.4.1:

- **Comment:** Sustainable Attribute %= Sum for all materials: (Portion of the Material with the attribute x material cost)/(Total Material Value)
It should read:
Sustainable Attribute %= Sum for all materials: (Portion of the material with the attribute x material cost) / Total Material Value
- **Reason:** The equation is confusing and incorrect. Now that “total” has been removed from “total material value” As stated, a % on the left side of the equation is equal to a portion divided by \$ on the right side of the equation. This defies mathematics. The equation should be presented including how to do the “adding percentages of materials” as this is not clear. It seems the first step is to determine all of the material values for each attribute. These would be the recycled/biobased content times the material value, which would result in \$ amounts of recycled/biobased content for each product. These would then be added to get a total \$ amount for all of the biobased/recycled contents. This would then be divided by the total material value in \$. So “total” in material value has to be reinstated. This would result in the percentages that can be used to obtain points.
- **Recommended Response (From Subcommittee):** Thank you for your comment. Your comment has been accepted and the changes have been implemented in the draft Standard.
- **Subcommittee Vote:** 10 in favor, none opposed, 2 abstained

MOTION: The Motion was made and seconded to accept the recommended response to reject this comment.

Discussion took place on the Motion:

- The sentiment was expressed that in the future the Consensus Body should act on the suggested changes prior to acting on a response that references those changes because a decision has not yet been made.

AMENDMENT: The amendment was made and seconded to approve the Subcommittee’s proposed response to Comment 13-16 in addition.

Discussion took place on the Amendment:

- It was clarified that this would approve 13-16 and 13-17.

There was no opposition to the Amendment.

VOTE: The Amended Motion carried with 25 in favor, none opposed, and none abstained.

None Opposed.

None Abstained.

11 – 2. Substantive. 10.1.1:

- **Comment:** The proposed final design of the building with the lower anticipated environmental impact achieves the following performance targets compared to the reference design: A minimum 5% reduction each, for at least three impact indicators, one of which is global warming potential; and
 - No more than one impact indicator exceeds the reference design, and it does not exceed the reference indicator by more than 5%.
~~Other impact indicators do not exceed the reference design by more than an average of 5%.~~
- **Reason:** LCIA indicator results represent entirely different impact pathways and are expressed in different units. Percentage increases should not be averaged across multiple categories. Also, as proposed, one indicator could increase (worsen) by a higher magnitude than the required decreases and points would still be earned due to the specified averaging. The original text is preferred.
- **Recommended Response (From Subcommittee):** Thank you for your comment. Your comment has been accepted and the changes have been implemented in the draft Standard.
- **Subcommittee Vote:** 6 in favor, 3 opposed, 3 abstained

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

Discussion took place on the Motion:

- It was stated that this is a significant change that alters the meaning of the criterion rather than clarifying it. This is difficult to achieve in an LCA analysis. It was felt that there should be some language that allows more than one category to show the decrease.
- Clarification was requested about why the Subcommittee considered this a good response. It was stated that there was debate within the Subcommittee and they ultimately decided to encourage an overall net improvement outcome, as opposed to allowing one area to throw all other improvements off. This can be adjusted during the continuous maintenance period.
- Some participants stated their opposition to the Motion stating that the current language offers more flexibility, and the 5% is too restrictive and limiting.
- It was stated that all previous points are valid, but the commenter is pointing out that you can’t average the indicator.

AMENDMENT: The Amendment was made and seconded to change the proposed response by replacing with “No other impact indicator exceeds the reference design by more than 5%.”

There was opposition to the Amendment.

Discussion took place on the Amendment:

- It was stated that this Amendment seems to make things even looser than what was in the text to begin with. The two different indicators could be 5% each, whereas the original language allowed for a cumulative 5%.
- It was clarified that you can average these.

VOTE: The Amendment carried with 10 in favor, 7 opposed, and 6 abstained.

Opposed: Jeff Bradley, Greg Johnson, Chris Dixon, Kent Sovocool, Allan Bilka, Thomas Pape, Mike Cudahy

Abstained: Bill Carrol, Susan Gitlin, Gregg Bergmiller, Doug Tucker, Gord Shymko, Angela Tin

Discussion took place on the Amended Motion:

- The concern was raised that this response is now doing the exact opposite of the commenter's intention. It was stated that this is a protection between what we had and what we proposed.

VOTE: The Amended Motion carried with 11 in favor, 8 opposed, and 4 abstained.

Opposed: Jane Rohde, Susan Gitlin, Greg Johnson, Kent Sovocool, Thomas Pape, Mike Cudahy, Jeff Bradley, Bill Carrol

Abstained: Gregg Bergmiller, Chris Dixon, Gord Shymko, Josh Jacobs

Discussion that took place after the Vote:

- It was clarified that the response can no longer be "Your comment has been accepted", it is "accepted as modified." The correction was made with no objections.

4 – 1. General. 10.2.1.1:

- **Comment:** Can you please provide an explanation of why an industry wide EPD has the same weighting as a full product specific EPD?
- **Reason:** Typically an industry wide EPD does not earn the same weighting value as a full product specific EPD or a multi-attribute product certification due to the level of effort to obtain.
- **Recommended Response (From Subcommittee):** Thank you for your comment. Your comment has been accepted and no changes have been implemented in the draft Standard. The Consensus Body reviewed your comment and no specific changes were requested. The Committee considered the weightings and decided to leave the industry wide and the product specific weightings the same.
- **Subcommittee Vote:** 11 in favor, none opposed, 1 abstained.

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

Discussion took place on the Motion:

- The question was raised why this is considered an actionable comment and not an un-actionable comment. It was stated that this comment was submitted as a General comment, not Substantive which is permissible. Staff clarified that only when a Substantive Comment is submitted with no proposed language/reason that it's un-actionable.
- It was stated that this commenter has a valid point, but doesn't know how many points should be allocated. The speaker was against the Motion.
- Further dissatisfaction was expressed about the Subcommittee's response, stating that this does not accept the comment.
- It was stated that this decision was made after considering other options.

VOTE: The Motion carried with 13 in favor, 7 opposed, and 3 abstained.

Opposed: Josh Jacobs, Susan Gitlin, Karen Joslin, Allan Bilka, Thomas Pape, Don Horn, Kent Sovocool

Abstained: Greg Johnson, David Eldridge, Mike Cudahy

13 – 14. Substantive. 10.2.1.2:

- **Comment:** The informational references listed under 10.2.1.2 should be moved to be under 10.2.1.1.
- **Reason:** The informational references under 10.2.1.2 are multi-attribute standards and are applicable to 10.2.1.1 where multi attribute product certifications are given credit. They are not related to 10.2.1.2 and are confusing here.
- **Recommended Response:** Thank you for your comment. Your comment has been accepted with modification. The Consensus Body recognizes there's confusion and inserted the references into 10.2.1.1 in addition to 10.2.1.2 as the references should apply to both sections.

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

VOTE: The Motion carried with 23 in favor, none opposed, and none abstained.

None opposed.

None abstained.

5 – 2. Substantive. 10.3:

- **Comment:** UL Product Lens
- **Reason:** UL's Product Lens looks at the chemicals within the supply chain of a product and takes the use of the chemical into account to give guidance on its impact during manufacturing, use, and end of life. All of this is done without giving out proprietary chemical information or formulation. You can find more information here: <http://industries.ul.com/environment/certificationvalidation-marks/product-lens-certification> and here: <http://industries.ul.com/environment/transparency/ul-product-lens-program>
- **Recommended Response (From Task Group):** Thank you for your comment. Your comment has been rejected for the following reason: This program does not look at Risk and exposure as an assessment and is not responsive towards ANSI 355, but rather it is a transparency reporting mechanism.

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

Discussion took place on the Motion:

- The suggestion was made to change the response to "it doesn't use ANSI 355" instead of "not responsive to". Additionally, it was stated that the response is factually incorrect.

AMENDMENT: The Amendment was made and seconded to change the response to read "This program is not responsive toward ANSI 355 reporting structure" and to delete the last sentence in the response.

There were no Objections.

VOTE: The Amended Motion carried with 18 in favor, 4 opposed, and none abstained.

Opposed: Allan Bilka, Josh Jacobs, Susan Gitlin, Don Horn

None abstained.

9 – 1. Substantive. 10.3.1:

- **Comment:** ~~10.3 Risk-Hazard Screen Assessment (19 points) 10.3.1 Screening-Level Risk Assessment 10.3.1.1 At least one formulated product or article is selected that has a completed first, second, or third party screening-level risk assessment is certified in accordance with NSF/GCI/ANSI 355: Greener Chemicals and Processes Information Standard, has been reviewed based on the product's intended use, concentration of each chemical constituent within the product, and potential exposure. Exposure parameters at a minimum shall include 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, and amount utilized. Additional parameters may~~

include ventilation rate (interior products), wind speed (exterior products), and room/space size, or unlimited for unconfined spaces.

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, or exposure scenarios. Where a product has both interior and exterior exposure, the screening level risk assessment is required for the interior exposure only the interior exposure can be assumed to be worst case in the absence of contradicting information.

Product Screening-Level Hazard and Exposure Risk-Assessment Reporting:

The product manufacturer provides a screening-level risk/hazard assessment report that includes the following elements:

- ~~Certification that their full product formulation underwent~~ A report documenting the screening-level risk/hazard assessment, including each constituent chemical identified by applicable Chemical Abstract Service Number (CAS #) and the percentage (actual, estimated, or range %) of each constituent chemical in the formulation; and
- Exposure assessment calculations, including default assumptions with corresponding references. Note the default assumptions must be disclosed within the document directly or by reference to a publicly available source, and proprietary calculations are not allowed.
- ~~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 reported in the generic classification of Green (least risk), Yellow (second least risk), Orange (second most risk), and Red (most risk).~~

Note: ~~Human health and safety risk and ecological screening-level risk/hazard and exposure~~ assessments may be completed separately by different entities.

Informational Reference(s):

- ~~Screening-Level Risk assessment tools referencing NSF/GCI/ANSI 355: Greener Chemicals and Processes Information Standard and/or processes allowed by regulatory authorities, e.g. REACH, EPA, Health Canada or other authoritative sources(2011)~~
- **Reason:** Although it is called a Standard, NSF/GCI/ANSI 355 is really a guideline on how to evaluate and document the inherent hazards of chemicals. It does not include any guidance on how to evaluate exposure, and since risk is a function of hazard and exposure, risk is outside the scope of NSF 355. The guidance also does not provide any thresholds to prioritize one chemical over another, and it does not suggest color coding, rather it recommends a plethora of factors that could be considered for a given chemical and emphasizes the importance of comparing chemicals that have been similarly evaluated on identical parameters (for example it is best to compare aquatic toxicity based on similar test methods and using the same species).
- **Recommended Response (From Task Group):** Thank you for your comment. Your comment has been rejected for the following reason: The Consensus Body prefers a risk-based approach over a hazard-based approach.

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

Discussion took place on the Motion:

- It was stated that the response is not responsive to what's in the reason statement and is too quick a response to a very thoughtful comment.

VOTE: The Motion carried with 16 in favor, 5 opposed, and 3 abstained.

Opposed: Susan Gitlin, Kent Sovocool, Josh Jacobs, Thomas Pape, Don Horn
Abstained: Gregg Bergmiller, John Cross, Paul Bertram

Indoor Environmental Quality

Presented by Subcommittee Vice Chair, Chris Dixon

12 – 1. General. 11.2:

- **Comment:** ~~35 points~~ 17 points
- **Reason:** 11.2 Source Control and Measurement of Indoor Pollutants. Points say 35 at top but only add up to 17. The wording states teams have to track all volumes used on each product - this will be a VERY time intensive task and if it is only worth 3 points, will dramatically disincentivize teams from tracking at all. (see pages 87 to 92).
- **Recommended Response:** Thank you for your comment. Your comment has been rejected for the following reason: The points refer to all of 11.2. 11.2.1 is worth 17 points. The Consensus Body reviewed the second part of your comment and no specific changes were requested.

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

Discussion took place on the Motion:

- It was stated that the commenter thinks this criterion should have more points, but the response doesn't address that.

VOTE: The Motion carried with 22 in favor, 1 opposed, and none abstained.

Opposed: Susan Gitlin

None abstained.

20 – 1. Substantive. 11.2.2.1:

- **Comment: 11.2.2.1.1** To determine that the indoor air quality is acceptable upon *Substantial Completion* but prior to occupancy, the buildings indoor environments are tested using the U.S. EPA's Compendium of Methods for the Determination of Toxic Organic Pollutants in Ambient Air, TO-1, TO-11, TO-17, and ASTM Standard Method D 5197-09e1 Standard Test Method for Determination of Formaldehyde and Other Carbonyl Compounds in Air (Active Sampler Methodology) and U.S. EPA's Compendium of Methods for the Determination of Inorganic Compounds in Ambient Air, IO-2.1, and NIOSH Method 7500 for Crystalline Silica, . The testing takes place after construction ends and prior to occupancy.

The test protocols are in accordance with the following:

- The VOC, PM and Crystalline Silica sampling and averaging times and measurement methods achieve the detection limits of the contaminant levels listed in Table 11.2.2.1.1 below;

Table 11.2.2.1.1: Maximum level of contaminants:

Contaminant Maximum Concentration

...

PM2.5 (Primary & secondary), 98th Percentile = 35 ug/m3

PM10 (Primary & secondary), = 150 ug/m3

Silica (crystalline) = 50 ug/m3

- **Reason:** Particulate Matter (PM) and Silica dust should be included in the Pre-Occupancy Testing. Large amounts of particulate matter are generated during construction activities through activities such as sawing, cutting, grinding, drilling, boring, and sanding. Several categories of construction materials containing crystalline silica are predominant in buildings. Care should be taken to minimize exposure to occupants to these respiratory agents and the

building must be properly and thoroughly ventilated prior to occupancy to minimize exposures to PM and crystalline silica.

- **Recommended Response (From VOC Task Group):** Thank you for your comment. Your comment has been accepted with modification. “Particulates (PM_{2.5}) = 35 (24-hr)” and “Particulates (PM₁₀) = 150 (24-hr)” testing will be added to the draft Standard, but not the crystalline silica testing. Particulate Matter testing is done in many other Standards. Crystalline silica testing is a problem during construction, but is not aerosolized during the period when the testing would take place. If testing was taking place during construction, the Consensus Body would consider adding crystalline silica testing to the draft Standard.
- **Task Group Vote:** 7 in favor, 1 abstained, none opposed.
- **Note:** The task group believes that guidance for silica for existing buildings and major renovations should be included in a technical manual or appendix.

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

Discussion took place on the Motion:

- It was stated that the recommended response is in need of modification as the last sentence is contradictory to rejecting the comment. It was clarified that since the Standard is going into Continuous Maintenance, the Subcommittee opted give direction to the commenter to resubmit with better wording during that phase.
- It was stated that there is a testing process that can be done, but it can be recommended more clearly during continuous maintenance.
- One Consensus Body member stated there isn’t a Continuous Maintenance Process. Staff clarified that since GBI has only one Standard, and it is currently under Periodic Maintenance, there are no GBI Procedures for Continuous Maintenance, however ANSI does have Procedures for Continuous Maintenance. Upon the completion of this revision cycle GBI fully intends to switch to Continuous Maintenance and will develop Procedures in accordance with ANSI Essential Requirements. It was further clarified that this isn’t something that can be done during a revision cycle.

AMENDMENT: The Amendment was made and seconded to change the response as follows: “...when the testing takes place, which is currently not during construction.” and to remove the last sentence of the response.

There were no Objections.

VOTE: The Amended Motion carried with 25 in favor, none opposed, and none abstained.

None Opposed.

None Abstained.

18 – 11. Substantive. 11.2.2.1 Table:

- **Comment:** Provide correct reference for 2-ethylhexanoic acid, 1-methyl-2-pyrrolidone, nonanal, octanal, and 4-PCH
- **Reason:** OEHHA RELs do not exist for these compounds.
- **Proposed Response (From VOC Task Group):** Thank you for your comment. Your comment has been accepted with modification and changes have been implemented in the draft Standard. A footnote was added to the four compounds referencing 189.1.
- **Task Group Vote:** all in favor

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

VOTE: The Motion carried with 25 in favor, none opposed, and none abstained.

None Opposed.

None Abstained.

22 – 49. Substantive. 11.3.3.2:

- **Comment:** Regularly occupied spaces use artificial light sources with a Correlated Color Temperature (CCT) between 2700°K and ~~4500°K~~ 6500°K.
- **Reason:** Research (see <http://www.lrc.rpi.edu/programs/lightHealth/publications.asp>) has shown that light at the correct spectrum, intensity, time and duration may enhance the health and well-being of building occupants. Exposure to blue light, especially in the morning, is ideal for synchronizing people’s circadian rhythms, which can help people sleep better at night and be more alert during day. Morning daylight contains a lot of light in the blue spectrum whereas evening light contains a lot of red light. In cases where there is ample daylight penetrating deep into the workspace, building occupants may have the opportunity to be exposed to beneficial blue light in the morning. However, where this is little to no access to available daylight, supplemental artificial lighting must be used.

As written, this credit caps the CCT for artificial lighting to 4500k. Doing so limits the ability for projects and existing buildings to use artificial daylighting technology that has CCTs of up to 6500k. As more research is being completed on the connection between lighting and health, by limiting projects to a lighting CCT of 4500k – this could limit the lighting technologies new and existing buildings can use that provide benefits for building occupants. For example, there are current technologies that have dynamic lighting solutions where the artificial lighting is 6500k in the morning and incrementally decreases the lighting CCT in the afternoon to levels closer to 2700k. This mimics the pattern of daylight throughout the day moving from a blueish light spectrum to a red light spectrum. While it may be possible for artificial lights with CCTs in the 2700k to 4500k to synchronize circadian rhythms, those lights would have a higher intensity as compared with 6500k lights, and could inadvertently cause glare issues.

To provide maximum flexibility for projects, 4500k should be changed to 6500k to account for new information that is learned from studies of light and health.

- **Recommended Response (From Chair/Vice Chair):** Thank you for your comment. Your comment has been rejected for the following reason: This credit addresses static lighting conditions in the built environment. Dynamic lighting conditions for circadian rhythm is not addressed in the current Standard. This issue could be addressed in next review cycle.

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

VOTE: The Motion carried with 20 in favor, 2 opposed, and 1 abstained.

Opposed: Jane Rohde, Don Horn

Abstained: Susan Gitlin

Energy

Presented by Subcommittee Chair, David Eldridge

19 – 2. Substantive. 8.3.2.3.1:

- **Comment:** In all regularly occupied spaces that use at least 0.5 W/ft² (0.1 W/m²) of lighting power,
- **Reason:** 0-10V dimming is now standard in LED fixtures, why shouldn’t we require the use of this dimmability regardless of LPD when it doesn’t add much cost (if any).

- **Recommended Response (From Chair/Vice Chair):** Thank you for your comment. Your comment has been rejected for the following reason: Previously The Consensus Body vote was unanimous to add this text. A reward is already provided for controllability. More information would need to be provided to instigate this change.

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

Discussion took place on the Motion:

- It was stated that the last sentence is terse and that not a lot is offered. The question was raised about whether it can be expanded upon by the Subcommittee.
- An editorial change was made without a motion or vote. There was no objection.

VOTE: The Motion carried with 19 in favor, none opposed, and 2 abstained.

None Opposed.

Abstained: Susan Gitlin, John Cross.

19 – 3. Editorial. 8.3.2.3.1:

- **Comment:** In all regularly occupied spaces that use at least 0.5 W/ft² (0.1 W/m²) of lighting power,
- **Reason:** I don't think this line should be in our standard per my comment #2 but if we keep in then we should fix this conversion of W/sf to W/m². 1W/sf is about 5W/m².
- **Recommended Response (From Chair/Vice Chair):** Thank you for your comment. Your comment has been accepted with modification. The Consensus Body accepts the correction of the conversion and will also change in the N/A column for consistency.

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

Discussion took place on the Motion:

- A question was raised about whether being rounded to 5.4 is the industry practice. It was clarified that it was rounded for stylistic consistency within the Standard.

VOTE: The Motion carried with 22 in favor, none opposed, and none abstained.

None Opposed.

None Abstained.

14 – 11. Editorial. 8.5.2.1:

- **Comment:** One point is earned where the gathered data is provided for review by occupants and visitors with up-to-date or real-time information on space energy consumption. ~~The focus of electronic information access is to provide awareness and education that encourages behavioral changes and lead to further energy reductions.~~
- **Reason:** The content of the last sentence seems inconsistent with the approach used elsewhere in the document – the language is only explanatory and not essential to conforming with the one-point criterion.
- **Recommended Response (From Chair):** Thank you for your comment. Your comment has been accepted and the changes have been implemented in the draft Standard.

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

VOTE: The Motion carried with 23 in favor, none opposed, and none abstained.

None Opposed.

None Abstained.

13 – 21. Substantive. 12:

- **Comment:** ANSI/ASHRAE/IES Standard 90.1-2012 2013 Energy Standard for Buildings Except Low-Rise Residential Buildings

- **Reason:** There is no 2012 version of ASHRAE 90.1. There are versions every three years: 2010, 2013, and 2016.
- **Recommended Response (From Staff):** Thank you for your comment. Your comment has been accepted with modification. The reference to ANSI/ASHRAE/IES Standard 90.1-2012 Energy Standard for Buildings Except Low-Rise Residential Buildings was deleted from the draft Standard under Section 12 and under Energy Subsection 8.3.1.1 where it also appeared, because the correct 2013 version of Standard 90.1 was already referenced in both places.

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

VOTE: The Motion carried with 21 in favor, none opposed, and none abstained.

None Opposed.

None Abstained.

Additional Materials Comments

Presented by Subcommittee Chair, Charles Kibert

9 – 2. Substantive. 10.3.1:

- **Comment:** Left Blank by Commenter
- **Reason: 1.** It is advisable to add a de minimus screening level to this section. For example – does the committee want to require analysis of all chemical constituents that are intentionally added to a product or material down to 0.01% and greater, or some other level? **2.** Would the committee accept screening level assessments based only on supplier SDS's (which only get down to 0.1% for carcinogens and 1% for other hazards)? Screening down to 0.01% may require non-disclosure agreements with suppliers and adds another level of scrutiny, as well as greater integrity. On the other hand, if the exposure assessments are based on generic assumptions and default values, then the precision is compromised at that step anyhow. **3.** Does the committee want to limit the requirement to calculate exposure to listed CMR's (carcinogens, mutagens, and/or reproductive/developmental toxicants) and PBT's (persistent, bioaccumulative, and/or toxic) substances, so for example there is no need to calculate exposure to skin irritants? **4.** Does the committee want to offer disclosure points? For example if listed CMRs and PBTs are present, they must be disclosed? **5.** Does the committee want to offer extra points when there are no listed CMR's or PBT's present (this would be a higher level of achievement because the manufacturer is not exposing their workers also there is less concern for unintended end uses or unanticipated exposure routes)? **6.** If the committee is going to place value on performing exposure calculations, then it should define an acceptable exposure/s. **7.** Validation and transparency of the exposure models is critical, and the standard should not encourage oversimplified claims such as "anything embedded in a polymer will not have exposure" as is trending with other standards and many software programs. As public health professionals, we have learned that lead embedded in polymeric paint and brominated flame retardants in furniture fabrics have made their way into children's blood. It is better to incentivize safer chemistry and exposure mitigation.
- **Recommended Response (From Task Group):** Thank you for your comment. Your comment has been accepted with modification. 1 & 2: Insert language in first bullet under Reporting: "...of each constituent chemical in the formulation (de minimus of 0.1% for carcinogens and 1% for other hazardous ingredients)"

3. We're not limiting the requirements to CMRs and PBTs. The ANSI Standard covers many more characteristics than just CMRs and PBTs.
4. We're not offering points for disclosure because CMRs and PBTs must be incorporated into the Risk Assessment.
5. The reward for absence of CMRs and PBTs will be for such products to have lower risk and higher acceptability.
6. The exposure levels are based upon numerous factors associated with specific usage conditions and must therefore be customized into the risk assessment.
7. Risk is dependent upon the combination of hazard and exposure levels with the key exposure factors being defined in this Standard. Documentation for the transparency is defined in 10.3.2.

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

Discussion took place on the Motion:

- It was pointed out the Consensus Body has been trying not to just answer these open-ended questions when a specific revision request was made. The question was raised if there is a way to show what we're simply answering or which we're modifying.

VOTE: The Motion carried with 17 in favor, none opposed, and 5 abstained.

None Opposed.

Abstained: Jeff Bradley, Susan Gitlin, Chris Dixon, Thomas Pape, Mike Cudahy

18 – 6. Editorial. 10.3.1.1:

- **Comment:** Revise first paragraph to read *“At least one formulated product or article is selected that has a completed first, second, or third party screening-level risk assessment in accordance with the chemical characteristics identified in NSF/GCI/ANSI 355:Greener Chemicals and Processes Information Standard . . .”*
- **Reason:** Edit makes this reference to NSF 355 consistent with the reference later in the Section. The NSF standard does not specify a process for conducting risk assessment; rather it identifies the characteristics to be considered in a risk assessment.
- **Recommended Response (From Task Group):** Thank you for your comment. Your comment has been accepted and the changes have been implemented in the draft Standard.

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

VOTE: The Motion carried with 22 in favor, none opposed, and 1 abstained.

None Opposed.

Abstained: Thomas Pape

8 – 29. Substantive. 10.3.1:

- **Comment:** Do the adjusted credit value assignments in the right column seem balanced? 19 points for 30 products but only 14 points for 29 products seems unfair.
- **Reason:** If the previously accepted 15 points are now tantamount to 19 points, why not raised the point values throughout this Section?
- **Recommended Response:** Thank you for your comment. Your comment has been rejected for the following reason: The points were set at 19 for 30 products and 14 for 29 products to incentivize teams to put in the extra work.

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

VOTE: The Motion carried with 23 in favor, none opposed, and none abstained.

None Opposed.

None Abstained.

22 – 45. Substantive. 10.4.1.1:

- **Comment:** Sustainable Attribute % = (Portion of the Material with the Attribute) / (Total Value of Materials Value on the Project)
- **Reason:** Better clarification is needed for the formula.
- **Recommended Response (From Subcommittee):** Thank you for your comment. Your comment has been rejected for the following reason: The Consensus Body agrees with the commenter, however, the formula was improved in response to comment 13 – 16 which presented an alternative to your proposal.
- **Subcommittee Vote:** 10 in favor, none opposed, 2 abstained.

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

VOTE: The Motion carried with 23 in favor, none opposed, and none abstained.

None Opposed.

None Abstained.

13 – 18. Substantive. 10.4.1:

- **Comment:** *(add new text as follows)* For any given material, the sum of the portions of the material with these attributes shall not exceed 1.
- **Reason:** It should be clarified that for any one material, the sum of the portions of the material with these attributes should not exceed 1. This will prevent gaming and misinterpreting the equation.
- **Recommended Response (From Subcommittee):** Thank you for your comment. Your comment has been rejected for the following reason: This is adding complexity to the formula that was approved in 13 – 16.
- **Subcommittee Vote:** 6 in favor, 3 opposed, 3 abstained.

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

VOTE: The Motion carried with 23 in favor, none opposed, and none abstained.

None Opposed.

None Abstained.

18 – 8. Substantive. 10.4.1.1:

- **Comment:** Simplify scoring –
Ten points are earned for greater than 25%
Five points are earned for 16-25%
Two points are earned for 12-15%
One point for 10-11%
- **Reason:** The proposed scoring system suggests a level of certainty in the calculation than is likely to be achieved.
- **Recommended Response (From Subcommittee):** Thank you for your comment. Your comment has been rejected for the following reason: There was not enough reason given to remove the granularity of the existing point system. The current points allow teams to get the points that are earned without missing whole points.
- **Subcommittee Vote:** 11 in favor, 1 opposed, none abstained.

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

VOTE: The Motion carried with 22 in favor, none opposed, and 1 abstained.

None Opposed.

Abstained: Susan Gitlin

13 – 15. Substantive. 10.4.1:

- **Comment:** Delete section 10.4.1 on Product Sustainable Materials Attributes in its entirety.
- **Reason:** The single attributes of recycled content and biobased/sustainable forestry content are narrow performance indicators and often not accurate indicators of true benefits for materials from a life cycle perspective. Recycled content doesn't take into account the energy used and emissions produced to manufacture recycled products compared to the energy to produce virgin products. The biomass and sustainable forestry content do not take into account the energy used and emissions produced to plant, grow, harvest, and manufacture these products. The calculation methodology is confusing the equation is incorrect.
- **Recommended Response (From Subcommittee):** Thank you for your comment. Your comment has been rejected for the following reason: The Consensus Body feels that Sustainable Materials Attributes have a place in the rating system until such time as the industry has been able to more fully embrace life cycle assessment. The calculation for this credit has been fixed in response to comment 13 – 16.
- **Subcommittee Vote:** 6 in favor, 4 opposed, none abstained.
- **Note:** Previous Motion to Accept with modification failed.

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

VOTE: The Motion carried with 17 in favor, 3 opposed, and 2 abstained.

Opposed: Jane Rohde, Allan Bilka, Don Horn

Abstained: Susan Gitlin, Mike Cudahy

5 – 3. Substantive. 10.4.2:

- **Comment:** Manufacturer's product data sheets or a statement from manufacturer(s) certifying claims or third-party certification from an organization that has the program in its ISO 17065 scope of accreditation.
- **Reason:** Limiting the recommended documentation to only manufacturer claims goes against the third-party nature of Green Globes itself. Allowing for documentation from both a manufacturer and a reputable third-party is more accurate.
- **Recommended Response (From Subcommittee):** Thank you for your comment. Your comment has been accepted and the changes have been implemented in the draft Standard.
- **Subcommittee Vote:** 8 in favor, 2 opposed, 2 abstained

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

Discussion took place on the Motion:

- The question was raised if there are any other third party validation other than ISO 17065 that could be used to validate the claims.

AMENDMENT: The Amendment was made to add "or in a comparable program of accreditation." to the response.

Discussion took place on the Amendment.

- It was stated that putting the onus on assessors is a tall order.

There was no second to the Amendment

VOTE: The Motion carried with 19 in favor, 2 opposed, and 2 abstained.

Opposed: Jeff Bradley, Thomas Pape

Abstained: Chris Dixon, Karen Joslin

22 – 46. Substantive. 10.5.1.1:

- **Comment:** OR
Percentage = $100 \times (C \div D)$, where:

~~C = Total mass of reused existing structural systems~~

~~D = Total mass of structural systems in the project~~

- **Reason:** The calculation for reuse of structural systems should be by area, not weight. A few heavy components could sway the percentage being reused. Historic preservation concerns are another aspect of counting area rather than weight. The entire surface of the structural wall or floor must be counted for this reuse credit, not only the mass.
- **Recommended Response (From Subcommittee):** Thank you for your comment. Your comment has been accepted and the changes have been implemented in the draft Standard.
- **Subcommittee Vote:** 9 in favor, none opposed, 3 abstained.

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

VOTE: The Motion carried with 19 in favor, none opposed, and 2 abstained.

None Opposed.

Abstained: Jeff Bradley, Kent Sovocool

22 – 47. Substantive. 10.6.1.1:

- **Comment:** . . .
 - Includes approximate generated quantities, if possible;
 - ~~Identifies a target diversion rate that the contractor should meet or exceed;~~
 - Includes the name and contact information for the person(s) responsible for developing and implementing the waste management plan;
 - Includes reporting and record keeping provisions
 - ~~provides average facility recycling rates. For each recycling facility used, it should be noted whether the recycling operation is certified through a state, local, or a third party independent certification.~~
- **Reason:** The requirements for 10.6.1 have become too complicated, especially for the number of points achieved. The two items proposed to be struck from the waste management plan are not necessary for a preconstruction plan.
- **Recommended Response (From Subcommittee):** Thank you for your comment. Your comment has been accepted and the changes have been implemented in the draft Standard.
- **Subcommittee Vote:** 8 in favor, 2 opposed, 2 abstained
- **Note:** Previous motion to reject the comment failed.

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

VOTE: The Motion carried with 18 in favor, 1 opposed, and 2 abstained.

Opposed: Susan Gitlin

Abstained: Kent Sovocool, Karen Joslin

22 – 48. Substantive. 10.6.1.2:

- **Comment:** A final waste management ~~is a summary report~~ is completed after construction that documents documenting the results of the project that includes all waste and recycling/reuse materials, their weight/volume, recycling rate for each line item on the plan, and an overall recycling rate for the project.

The Summary Report will also includes:

- ~~An overall recycling rate for the project;~~
- ~~Material categories;~~
- ~~Amounts of materials salvaged, reused, recycled, donated, sold or returned to manufacturers with takeback programs, as well as the achieved recycling rate for each line item;~~

- Names of take back programs, recyclers, salvage and reuse companies and/or material exchanges that were used;
- Records of donations, sales, recycling and landfill/incinerator manifests, weight tickets, hauling receipts, and invoices;
- For each recycling facility used, it should be noted whether the recycling operation is certified through a state, local, or a third-party independent certification.

The report includes Include a separate average recycling rate . . .

Include the name and contact information for the ~~person(s) responsible for developing and implementing the waste management plan, the person responsible for the off-site facility recycling rate and the person responsible for the content of the final waste management report.~~

- **Reason:** The requirements for 10.6.1 have become too complicated, especially for the number of points achieved. The items proposed to be struck from the summary report are already listed in the first paragraph.
- **Recommended Response (From Subcommittee):** Thank you for your comment. Your comment has been accepted and the changes have been implemented in the draft Standard.
- **Subcommittee Vote:** 9 in favor, none opposed, and 3 abstained.

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

Discussion took place on the Motion:

- One speaker, against the motion, stated that to delete both renders the criterion useless. Another speaker, in favor of the motion, said the criterion is repetitive. It was stated that if the criterion is redundant, the language that the commenter proposes to strike is laying out what's expected in the summary report.
- Further speakers stated that this criterion is not currently adequate for publication.
- The suggestion was made to send this language back to the Subcommittee to be worked on to address the gaps and ensure that we don't lose content that should be included. There was skepticism about the efficacy of sending the language back to the Subcommittee to generate any vastly new response.

MOTION TO REFER: The Motion was made and seconded to refer the comment back to the Subcommittee to address gaps and inconsistencies between 10.6.1.1 and 10.6.1.2.

Discussion took place on the Motion:

- It was stated that this Motion is uncomfortable as it's attempting to direct the direction of the Subcommittee's response. Disagreement was expressed stating that the motion is appropriately worded. **VOTE: The Motion carried with 18 in favor, 2 opposed, and 2 abstained.**

Opposed: Jane Rohde, Angela Tin

Abstained: Bill Carrol, Paul Bertram

Points Task Group Update

Presented by Task Group Chair, Gord Shymko

Option 1: Environmental Valuation Matrix

Process: Continue with development of a points valuation matrix, most likely as part of the continuing maintenance of the Standard and/or in anticipation of the next version of the Standard.

Details developed by K. Joslin and S. Gitlin

Option 2: Subcommittee Review

Process: Each Subcommittee is tasked with reviewing the point allocations within their category. Within each subcategory, each rating criteria is to be reviewed and points possibly reallocated as deemed necessary based on the following impact categories:

1. Optimize energy performance
2. Protect and conserve water
3. Enhance indoor environmental quality to maximize human health and performance
4. Minimize environmental impact of materials
5. Difficulty of implementation

Emphasis is to be placed on identifying criteria that have cross-category implications, with point assigned or re-assigned accordingly.

The final point allocation for each category should be no more than 250 points, but may be less. Review results are submitted to the Consensus Body for consideration.

Option 3: Points Task Group Review

Process: Points Task Group is re-constituted to review the initial point allocation process to determine if the current point system is appropriate.

Task group reviews original criteria of the Analytical Hierarchy Process to determine if changes should be made to the current point allocation system, with emphasis on identifying criteria that have cross-category implications.

If changes are necessary, the Task Group would adjust allocation and recommend new point allocation to the Consensus Body.

Option 4: Subcommittee Review and Task Group Arbitration

Process: Each Subcommittee is tasked with reviewing the point allocations within their category as per Option 2, reporting to the Points Task Group. Points Task Group considers the Subcommittee reports. If changes are necessary, the Task Group would adjust allocation and recommend new point allocation to the Consensus Body.

The Chair of the Task Group provided an update of the Task Group's work to date and summarized the four Options above. Option 1 was presented by the two members of the Task Group who developed the Environmental Valuation Matrix.

PRESENTATION OF OPTION 1:

- It was stated that innovative new solutions may be excluded because Subcommittees don't want to take points away from other criteria. Concern was raised that if the Standard doesn't eliminate old criteria but keeps adding new innovative criteria, the existing content would be reduced in value. It was stated that such a scenario would effectively increase the cost per point and the cost of certification to the builder.
- The presenters explained that in the Environmental Valuation Matrix, each criterion could be evaluated based on the level of benefit achieved across a series of impact categories. The Subcommittees and an independent body, like the Points Allocation Task Group, could do this then iron out inconsistencies in the sum values.
- The presenters stated that this approach creates a value for each of the criterion, and values for the criteria become the basis of the total points available in any given category for any given Assessment Area, which is the opposite of the system currently employed.
- The presenters felt using Option 1 and the Environmental Valuation Matrix would be a fluid approach. If criteria change, everything can be adjusted constantly within the 1000 point maximum.

Discussion before motion:

- It was stated that each one of these options is valid and can be integrated in some way.
- Concern was raised that any changes to the system or the numbering could possibly be subject to public comment.
- Several criteria were pointed out as examples where points allocated were not considered equitable relative to environmental impact by the speaker.
- Another spoke in disagreement stating they felt one of the examples previously listed as not having enough points was a new item included and the existing points allocated bring new attention to the issue raised.
- Overall concerns were expressed about needing to go back to the drawing board and further delaying this process.
- It was stated that Option 3 would allow other options underneath it.

MOTION: The Motion was made and seconded to adopt Option 3

Discussion took place on the Motion:

- Chair Mike Lehman clarified that this process will be in parallel to the final draft of the document. It won't be done as preventing the finalization of the document.

The original motion-maker stated their intent to withdraw the Motion

Further discussion took place.

- The Secretariat clarified that a Motion cannot be withdrawn unless a motion is made to withdraw the motion and the vote carries.

AMENDMENT: The amendment was made and seconded to add "to undertake the necessary work with the intention of completing it in time with issuing the final draft of the standard."

MOTION TO TABLE: The motion was made and seconded to table this discussion until the next day of the Consensus Body Meeting.

VOTE: The Motion carried with 14 in favor, none opposed, and 1 abstained.

None Opposed.

Abstained: Karen Joslin

--Day One of the meeting adjourned by Chair: 4:06pm EST--

Tuesday, April 11, 2017

Welcome & Roll Call

Secretariat, Maria Woodbury welcomed participants and conducted roll call to establish quorum. The anti-trust statement and Code of Conduct were reviewed and participants were requested to comply with both fully. A reminder was given that the Code of Conduct states that a professional tone is maintained, that interruptions are not permitted, and that people who would like to speak during discussions will be called on in order. People who have not yet spoken on an issue will be called on before people who have already had a turn to speak.

Administrative Items

Vice Chair Charles Kibert made his opening comments updating the agenda to include a continuation of the points discussion and opening the meeting with Project Management presented by Karen Joslin. Charles reminded presenters to combine comment responses into one motion when possible.

Second Public Comment Period

Project Management

Presented by Subcommittee Chair, Karen Joslin

22 – 21. Substantive. 6.1.2.1:

- **Comment:** The following points are earned when a minimum of the listed job functions or groups were represented ~~at~~ during the following ~~milestones~~ project phases:
- **Reason:** Project phases are not milestones.
- **Proposed Response (From Chair/Vice Chair):** Thank you for your comment. Your comment has been accepted with modification. The language will be changed to “milestones or project phases”. “At” will be retained because “during” leaves too much room for gaming the system.

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

Discussion took place on the Motion:

- Clarification was requested for the meaning of “at project phase.” The speaker further stated that the conceptual or design phase is not a stagnant point in time.

AMENDMENT: The Amendment was made and seconded to change the response to read “at the following milestones or during the following project phases”

There were no Objections

VOTE: The Amended Motion carried with 16 in favor, none opposed, and 3 abstained.

None Opposed.

Abstained: Gregg Bergmiller, Allan Bilka, Angela Tin

22 – 22. Substantive. 6.1.2.1:

- **Comment:** Right column: ~~Milestone~~ Project phase or event
- **Reason:** Project phases are not milestones.
- **Proposed Response (From Chair/Vice Chair):** Thank you for your comment. Your comment has been accepted with modification. The language will be changed to “Milestone or Project Phase” for clarity and consistency.

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

Discussion took place on the Motion:

- Clarification was requested as to whether the Consensus Body needs to change the language since the language was changed in 22 – 21. It was stated that 22 – 21 and 22 – 22 originated from the same commenter.

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

None Opposed.

Abstained: Angela Tin, Jeff Bradley, Allan Bilka

14 – 6. Substantive. 6.1.3.1:

- **Comment:** 6.1.3.1 Whole building risk ~~Risk~~ Assessment: An assessment identifying risks to the building including continued building occupancy resulting from extreme natural events, global climate change, and human activity for the expected service life of the building has been conducted and provided to building owners and designers. The assessment identifies hazards and evaluates the probability and severity of occurrence of those events. These hazards include, but are not limited to, weather, flooding, seismic and volcanic events, drought, wildfire, soil stability, toxic chemicals, and terrorism.

- **Reason:** This use of the term “risk assessment” is inconsistent with the standard’s current definition of the term, so we suggest adding “whole building” as a clarification. Moreover, the release of toxic chemicals is a hazard that should be included in the risk assessment.
- **Proposed Response (From Task Group):** Thank you for your comment. Your comment has been accepted with modification. The term “building risk assessment” will be used to address this discrepancy. The language will also be changed to include “toxic chemicals.”
- **Task Group Vote:** 5 in favor, 2 opposed, 1 abstained.

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

Discussion took place on the Motion:

- It was stated that adding the phrase “toxic chemicals” was a significant discussion in the Subcommittee. It was stated that the discussion of “toxic chemicals” needs to be separated from the rest of the Motion.

AMENDMENT: The Amendment was made and seconded to delete “toxic chemicals” from the response.

Objections were raised to the Amendment.

Discussion took place on the Amendment:

- Further clarification was provided stating why toxic chemicals should be deleted. It was pointed out that every thing else that is listed is something that happens to a building while toxic chemicals does not describe an event. It was suggested that toxic be removed and chemicals included, but others argued that it was still unclear whether it’s referring to a spill, whether chemicals are nearby, or something else.

Question For Parliamentarian: Can the motion be split to vote separately on the issues at hand?

- The parliamentarian stated that this can be handled as two separate amendments.

Further discussion took place on the Amendment.

- One participant spoke in favor of the amendment due to “toxic chemicals” being unclear.
- It was pointed out that the other events are “acts of God” and toxic chemicals don’t fit that category. It was stated that “toxic chemicals” affects soil stability but should not be added to the list.
- The suggestion was made to add language in front of “toxic chemicals” to clarify the intent (i.e. “exposure to” “release of”).
- It was clarification that the inclusion of these hazards is intended to reflect the highest risks within that community or given site.
- It was stated that the last sentence discusses natural events but first sentence talks about human activity and that this is not cohesive.

VOTE: The Amendment carried with 14 in favor, 5 opposed, and 3 abstained.

Opposed: Susan Gitlin, Allan Bilka, Kent Sovocool, Don Horn, Tien Peng

Abstained: Thomas Pape, Doug Tucker, David Eldridge

VOTE: The Amended Motion carried with 15 in favor, 3 opposed, and 4 abstained.

Opposed: Nicole Dovel-Moore, Susan Gitlin, Allan Bilka,

Abstained: Thomas Pape, Kent Sovocool, Rachel Minnery, David Eldridge

22 – 7. Substantive. 6.1.3:

- **Comment:** 6.1.3.1 ~~Risk Assessment~~ Sensitivity Assessment 6.1.3.3 Document that the findings of both the ~~risk~~ Sensitivity and building function assessments have been integrated into the building design parameters . . .

- **Reason:** Subsection rename from Risk assessment to Sensitivity Assessment. Without a definition for risk assessment regarding climate risks, how does the protocol user know how to determine sensitivity and adaptive capacity to complete a risk assessment addressing both threats and opportunities? How does the protocol user define consequences of no action?
- **Proposed Response (From Task Group):** Thank you for your comment. Your comment has been rejected for the following reason: The term has been updated to “building risk assessment” and the Consensus Body would like to be consistent in our terminology moving forward.
- **Task Group Vote:** all in favor

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

Discussion took place on the Motion:

- Clarification was requested for why this term “Risk Assessment” was changed. It was stated that the Project Management Subcommittee would prefer to use “building risk assessment,” since the section looks at building risk or the risk of building operation. This section does not related to risk to inhabitants from toxic materials which is covered in the Materials Assessment Area.
- It was stated that “Vulnerability Assessment” is an industry term rather than “Sensitivity Assessment.”
- It was stated that this criterion is about identifying risk not necessarily identifying the extent of each risk.

VOTE: The Motion carried with 16 in favor, 2 opposed, and 5 abstained.

Opposed: Don Horn, Susan Gitlin

Abstained: Jeff Bradley, Kent Sovocool, Thomas Pape, Mike Cudahy, David Eldridge

Site

Presented by Subcommittee Chair Gregg Bergmiller

Bergmiller reported that the Site Subcommittee only had un-actionable comments to present at the time of the meeting. He reported that there had been a meeting of the Heat Island Effect Task Group at which some progress was made to reach a resolution, however Bergmiller also stated that this was a contentious issue.

Continued Discussion of Points Task Group

Presented by Task Group Chair, Gord Shymko

The Secretariat recapped the events of the previous day stating that there was a Motion to use option 3 with an Amendment to add clarifying language stating the intention of completing the changes to points in time for the final draft of the Standard. There were objections to the amendment and discussion was opened on the Amendment.

Discussion took place on the Amendment:

- It was stated that the term “intention of completing it in time” doesn’t tie any hands but is sufficient.
- It was specified what the role of the Task Group was, and what the Consensus Body’s role is now.
- A member of the Points Task Group clarified that despite this presentation of options taking 8 months to generate, that does not mean that is all the Task Group is capable of doing. The speaker stated that the Task Group is ready for some guidance to move forward.

VOTE: The Amendment carried with 13 in favor, 4 opposed, and 6 abstained.

Opposed: Susan Gitlin, Greg Johnson, Jeff Bradley, Thomas Pape

Abstained: George Thompson, David Eldridge, Allan Bilka, Gregg Bergmiller, Angela Tin, Doug Tucker

AMENDMENT: The amendment was made and seconded to insert: “each Subcommittee is tasked with reviewing the points allocation within their category.” (to go before If...)

Objections were raised to the Amendment.

Discussion took place on the Amendment:

- It was stated that the additional sentence is not necessary at this point. Having the Subcommittees take another look at their Points Allocation was part of the idea of the matrix which was Option 1, and it was part of the other Options as well, and Option 3 the—having the Subcommittees do that is not precluded, first there needs to be higher level discussion about what we want to do.
- Confusion was expressed that the amendment seems to imply that the existing allocation of points is actually the same. But if this is going to change the major allocations, then Subcommittees getting involved needs to wait. The speaker was against the motion.
- It was stated that this amendment changes Option 3 to Option 4 and the speaker was against doing that.

AMENDMENT TO THE AMENDMENT: The Amendment was made and seconded to put the proposed sentence after the sentence “If changes...” and clarify to “reallocation within their Assessment Area”.

There were no Objections

Discussion took place on the Amended Amendment:

- It was stated that the amended amendment puts the cart before the horse. A speaker felt that until it’s determined what issues need to be addressed, or cross-Subcommittee problems, the allocation of points to criteria across chapters, impact categories, there should be no onus on the Subcommittees to do anything.
- The point was reiterated that this amendment makes this option similar to Option 4, but preferable because it doesn’t reference Option 2 and Option 4 does.
- It was pointed out that the Points Task Group has completed its mandate as of this meeting and per Option 3 will be re-constituted to achieve this goal.
 - There was a question about what “if changes” referred to.
- Sentiments further echoed the statement that this Amended Option is similar to Option 4 but the impact categories in Option 2 are old and can easily be removed. This is now getting very Prescriptive with Option 3 but Option 4 would allow the latitude for proper work to get done.
- It was stated that Option 4 would leave the subtotals of points in place. There was concern that there’s no chance for major restructuring of the allocation.

VOTE: The Amended Amendment carried with 16 in favor, 5 opposed and 4 abstained.

Opposed: John Cross, Thomas Pape, Susan Gitlin, Mike Lehman

Abstained: David Eldridge, Chris Dixon, Jane Rohde, Don Horn

VOTE: The Amended Motion carried with 14 in favor, 7 opposed and 2 abstained.

Opposed: Thomas Pape, Susan Gitlin, Gary Keclik, Mike Lehman, Greg Johnson, Gord Shymko, Don Horn

Amended: George Thompson, Jane Rohde

Water Efficiency

Presented by Subcommittee Chair, Kent Sovocool

9.2.1.5- “Bleed” replaced by “cooling tower blowdown” and the sentence was deleted.
It was clarified that the last action taken was to delete the language.

Decision: Uphold the deletion.

Vote: all in favor

MOTION: The Motion was made and seconded to accept the Subcommittee’s decision.

VOTE: The Motion carried with 21 in favor, none opposed, and none abstained.

None Opposed.

None Abstained.

9.6.2.1- ~~Points are earned where reclaimed or alternate water sources meet a percentage of the outdoor demand LWA:~~

~~• Fifteen points are earned for at least 90% of outdoor demand LWA.~~

~~• Fourteen points are earned for 70-89% of outdoor demand LWA.~~

~~• Thirteen points are earned for 50-69% of outdoor demand LWA.~~

~~• Twelve points are earned for 30-49% of outdoor demand LWA.~~

~~• Eleven points are earned for 10-29% of outdoor demand LWA.~~

MOTION: The Motion was made and seconded to strike the language officially in 9.6.2.1.

VOTE: The Motion carried with 23 in favor, none opposed, and none abstained.

None Opposed.

None Abstained.

Dixon. 9.4.3:

- **Reason or Comment:** Single-load and Multi-load are not defined.
- **Revision Requested:** Define terms.
- **Proposed Response (Subcommittee):** Thank you for your comment. Your comment has been accepted with modification. Single load and multi load are already defined as a subset of the definition for clothes washers. The following will be inserted alphabetically under 5.1 definitions “single load: see clothes washers. Multi-load: see clothes washers.” to refer users to the appropriate definition. The language in 9.4.3.1 will be changed to “*clothes washers, single load*” and “*clothes washers, multi load.*” In addition, 9.4.3.2 language will be modified to “*clothes washer, tunnel clothes washers*”
- **Subcommittee Vote:** all in favor.

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

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

None Opposed.

None Abstained.

Sovocool. 9.4.4.2:

- **Reason or Comment:** 9.4.4.2 ~~Water features use approved by the authority having jurisdiction alternate water sources of nonpotable water for make-up water where approved by the authority having jurisdiction.~~
- **Revision Requested:** Substantive. Wording order issue
- **Proposed Response (From Subcommittee):** Thank you for your comment. Your comment has been accepted with modification. “Alternate water sources of” will be retained to remain consistent with the original intent of the criteria.
- **Subcommittee Vote:** all in favor.

MOTION: The Motion was made and seconded to accept the comment as modified using the proposed response.

Discussion took place on the Motion:

- It was stated that it's unclear why the underlined term is needed when it's implicit. It was clarified that the language is being moved from its initial location, not being added.

AMENDMENT: The Amendment was made and seconded to add an N/A: "not applicable where prohibited by the authority having jurisdiction" and to strike "where approved by the authority having jurisdiction."

Objections were raised to the Amendment.

Discussion took place on the Amendment:

- One member voiced concern over the word choice "prohibited." It was stated that there is a difference between "prohibited" and "approved" and that "unless it's prohibited" is favorable language because it's rare to get approval. Member of the Water Subcommittee stated their amenability to the amendment.
- Members from Water Subcommittee are ok with the language of the amendment.

The Objection was withdrawn. No further Objections were raised.

VOTE: The Motion carried with 17 in favor, 1 opposed, and none abstained.

Opposed: Mike Cudahy

None Abstained.

8 – 24. Editorial. 9.4.2:

- **Comment:** *Water features use approved by the authority having jurisdiction use alternative water sources of non-potable water for make-up water.*
- **Reason:** The syntax as presented is awkward. By simply moving the word *use* the issue is ameliorated.

22 – 43. Editorial. 9.4.4.2:

- **Comment:** Water features use ~~approved by the authority having jurisdiction~~ alternate water sources of non-potable water, approved by the authority having jurisdiction, for make-up water.
- **Reason:** Better wording.

14 – 12. Editorial/Substantive. 9.4.4.2:

- **Comment:** ~~For make-up water, water~~ *Water features use approved by the authority having jurisdiction alternate water sources of non-potable water for make-up water.* alternate water sources of non-potable water that are approved by the authority having jurisdiction.
- **Reason:** The sentence as written does not make sense. We offer a potential solution.
- **Proposed Response (From Subcommittee):** Thank you for your comment. Your comment has been rejected for the following reason: The language was modified in response to another comment.
- **Subcommittee Vote:** all in favor

MOTION: The Motion was made and seconded to reject the three comments using the proposed responses.

VOTE: The Motion carried with 18 in favor, none opposed, and none abstained.

None Opposed.

None Abstained.

8 – 25. Substantive. 9.7.1.5:

- **Comment:** The credit value assignments in the right column lack information regarding the NA condition. Consider an additional list item stating, Not Applicable where less than 25% of the

units in the development are sub-metered and allow for tenants to view their consumption and be billed based upon it.

- **Reason:** The convention of explaining the Not Applicable (NA) condition is consistent throughout the Standard therefore it should be integrated here as well.
- **Proposed Response (From Subcommittee):** Thank you for your comment. Your comment has been accepted with modification. Language will be inserted stating “N/A where there is no multi-unit development”
- **Subcommittee Vote:** all in favor

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

Discussion took place on the Motion:

- There was a question about how this is applicable to multi-unit development. It was stated that this is intended to have the broadest application which is why it is written as it is. It was stated that multi-unit is intended to replace mixed-use and that it could be used for mixed-use or multifamily.

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

None Opposed.

None Abstained.

Whole Document Comments

Presented by Consensus Body Vice Chair and Acting Chair, Charles Kibert

8 – 2. Editorial. 5.1

- **Comment:** The following definitions lack punctuation at the end of the definition (as was added in multiple other locations): autoclaves, conceptual design phase.
- **Reason:** The two locations identified simply require a period at the end of the definition to present the same formatting as all other definitions in the Standard.
- **Recommended Response (From Staff):** Thank you for your comment. Your comment has been accepted and the changes have been implemented in the draft Standard.

8 – 14. Editorial. 5.2:

- **Comment: CABI:** CAB Centre for Agriculture and Bioscience International
- **Reason:** CAB is an acronym that is not otherwise defined by this section therefore it should be spelled out.
- **Recommended Response (From Staff):** Thank you for your comment. Your comment has been accepted and the changes have been implemented in the draft Standard.

14 – 5. Editorial. 5.2:

- **Comment:** Add RELS: Reference Exposure Levels. Alternatively, spell out the term when it is used in Table 11.2.2.1.1.
- **Reason:** “RELS” is used in Table 11.2.2.1.1, but not defined.
- **Recommended Response (From Staff):** Thank you for your comment. Your comment has been accepted and the changes have been implemented in the draft Standard by adding RELS to Section 5.2.

8 – 20. General. Full Document:

- **Comment:** Throughout the Standard, many provisions include multi-clause requirements linked by the conjunction AND or OR. Some locations spell said words using all capital letters while others solely capitalize the first letter. Would it be possible to adopt one convention for use throughout the Standard?
- **Reason:** Consistency

- **Recommended Response (From Staff):** Thank you for your comment. Your comment has been accepted and the changes have been implemented in the draft Standard by writing out all instances of “and” and “or” as specified by the commenter to all capital letters.
- **Executive Session Vote:** 7 in favor, none opposed, and none abstained.

MOTION: The Motion was made and seconded to move the proposed responses.

VOTE: The Motion carried with 19 in favor, none opposed, and 1 abstained.

None Opposed.

Abstained: George Thompson

8-1. Substantive. 5.1

- **Comment: authoritative:** a trustworthy or otherwise highly reliable resource, as in one that is that has been peer reviewed and/or publically recognized for use in evaluating specified products.
- **Reason:** The definition as present includes ambiguous language and passive speech. A peer reviewed resource is only as authoritative, reliable, and unbiased as the people assessing said content. In the same manner by which statistics can be manipulated to represent one parties contention, so too can product reviews. It is my opinion that the focus of the definition should be on what is intended by the adjective *authoritative*, not necessarily what constitutes an acceptable authoritative material. By what metric can public recognition of an evaluation for a specified product be measured? Short of an industry standard or MSDS or similar materials, this concept seems open to wide interpretation when the definition of the *authority* remains unclear.
- **Proposed Response (From Executive Session):** Thank you for your comment. Your comment has been rejected for the following reason: The definition of authoritative has been removed from the document.
- **Executive Session Vote:** all in favor

14 – 1. Substantive. 5.1

- **Comment: authoritative:** ~~a resource that has been peer reviewed and publicly recognized for use in evaluating specified products.~~
- **Reason:** 1) “authoritative” is an adjective, but the definition treats it as a noun. 2) The proposed definition is dependent on the term “peer reviewed,” an undefined term. While “peer reviewed” may be well-understood in the scientific and scholarly communities, it will not necessary be understood by all users of this standard, and we also wonder whether assessors would make the effort to ensure that a resource has been peer-reviewed. 3) By including “peer reviewed,” you may be excluding resources that have been subjected to public review and scrutiny, but not necessarily been reviewed in a scholarly journal. For example, governmental publications, despite significant input from the public, might not be considered “peer reviewed.” 4) The definition does not correspond to all actual uses of the term in the standard. See, for example, the informational reference for 10.3.1: “Screening-Level Risk assessment tools referencing NSF/GCI/ANSI 355: Greener Chemicals and Processes Information Standard and/or processes allowed by regulatory authorities, e.g. REACH, EPA, Health Canada or other authoritative sources.” The proposed definition for “authoritative” is inconsistent with how the word is used here.
- **Proposed Response (From Executive Session):** Thank you for your comment. Your comment has been accepted and the changes have been implemented in the draft Standard.
- **Executive Session Vote:** all in favor

MOTION: The Motion was made and seconded to move the proposed responses.

VOTE: The Motion carried with 21 in favor, none opposed, and none abstained.

None Opposed.

None Abstained.

8 – 13. Substantive. 5.1

- **Comment: substantial completion:** the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use for unobstructed use and occupancy by the Owner and the only items of Work remaining to be completed are of a minor nature such as touch-up, adjustments, testing, corrections and omissions to be remedied (AIA A201-2007, 9.8.1).
- **Reason:** The definition as provided deviates from the official definition provided in the AIA Contract Document. It is disingenuous to represent an AIA Contract Document to be more than it is therefore either 1) the definition included in this Standard should be revised to properly quote the source material; or 2) the pointer to the AIA Contract Document should be removed.
- **Proposed Response (From Executive Session):** Thank you for your comment. Your comment has been accepted and the changes have been implemented in the draft Standard.
- **Executive Session Vote:** 4 in favor, 2 opposed, 1 abstained

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

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

None Opposed.

None Abstained.

22 – 18. Substantive. 5.1

- **Comment: substantial completion:** the stage in the progress of ~~the Work~~ a construction project when the ~~Work project~~ or designated portion thereof is sufficiently complete in accordance with the Contract Documents for unobstructed use and occupancy by the Owner and the only work items ~~of Work~~ remaining to be completed are of a minor nature such as touch-up, adjustments, testing, corrections and omissions to be remedied ~~(AIA A201, 9.8.1).~~
- **Reason:** Change definition of substantial completion. The current AIA definition contains a defined term “Work” which makes it very confusing in the context of this standard. Remove those references to create a universally understood definition.
- **Proposed Response (From Executive Session):** No Recommendation. To be discussed with other response.
- **Executive Session Vote:** No Vote

MOTION: The Motion was made and seconded to moves to accept with modification. The following change was made in response to another comment. The term “the Work” will be replaced as recommended by the commenter.

Discussion took place on the Motion:

- The question was raised whether this was accepting the comment or accepting the comment with modification. It was decided that the Consensus Body is accepting the comment with modification if it carries the above response.

VOTE: The Motion carried with 18 in favor, none opposed, and 1 abstained.

None Opposed.

Abstaining: Kent Sovocool

New Business:

- Woodbury stated that there is no New Business prescheduled on the Agenda.
- Woodbury took names of people interested in participating in the new and reconstituted Points Task Group. It was stated that a group would be formed taking balance among Subcommittees into consideration.
- There was no New Business brought forward.

Review Schedule:

Woodbury reviewed the schedule moving forward:

- As soon as the in-person meeting is finalized, the information will be sent out and stakeholders notified.
- The in-person meeting will take place over three days with the first day being a half day in the afternoon to allow people to fly in, the second day being a full day, and the third day being a half-day in the morning to allow people to fly out.
- Staff estimates 13 hours of Consensus Body Meetings and 12 hours of Subcommittee Meetings remaining until the draft Standard is ready to go out to the next Public Comment Period.
- Additionally, GBI staff are preparing for ANSI audits.
- The Secretariat clarified that any loose ends will be tied up in a final meeting(s) that will be scheduled some time in June.

MOTION: The Motion was made and seconded and carried to adjourn the meeting with none opposed and none abstained.

--Meeting adjourned: 2:53 PM ET--