

Minutes

GBI Consensus Body Meeting #20

BSR/GBI 01---201X

Webinar

Tuesday, July 19th, 2016 11:00 AM ET to 3:00 PM ET

Attendance:

No	Name	Organization(s)	7-8-2016	7-19-2016			
1	Gregg Bergmiller	S/L/A/M Collaborative	X	X			
2	Paul Bertram	Kingspan Insulated Panels, Inc.	X	X			
3	Allan Bilka	International Code Council	X	X			
4	Jeff Bradley	American Wood Council	X	X			
5	William Carroll	American Chemistry Council	Proxy	X			
6	Chris Dixon	NBBJ (rep. self)	X	Proxy			
7	Nicole Dovel--- Moore	CTA Architects Engineers	Absent	Absent			
8	Amber Dzikowicz	NSF International	Absent	Absent			
9	David Eldridge	Grumman/Butkus Assoc.	X	X			
10	William Freeman	Resilient Floor Covering Institute	X	X			
11	Susan Gitlin	U.S. EPA	X	X			
12	Don Horn	GSA	Proxy	Proxy			
13	Josh Jacobs	UL Environment	X	X			
14	Greg Johnson	Johnson Consulting Services, Greenscape Alliance	X	X			
15	Karen Joslin			X			
16	Malee Kaolawanich	NIH (rep. self)	X	Absent			
17	Rachel Minnery	AIA		Absent			
18	Charles Kibert	University of Florida		X			
19	Gary Keclik	Keclik Associates	X	X			
20	Jennifer Kowalonek	Alfred Benesch & Company		X			

21	Thomas Pape	Alliance for Water Efficiency	X	X			
22	Tien Peng	National Ready Mix Concrete Assn.		Absent			
23	Jane Rohde	JSR Assoc. Inc., Vinyl Institute	Proxy	Proxy			
24	Gord Shymko	G.F. Shymko & Associates, Inc.	Proxy	X			
25	Kent Sovocool	Southern Nevada Water Authority	X	X			
26	Steve Strawn	JELD-WEN		Absent			
27	George Thompson	Chemical Compliance Systems, Inc.	X	Proxy			
28	Angela Tin	American Lung Assn.	X	Absent			
29	Douglas Tucker	Misubishi Electric Cooling & Heating	X	X			
30	Erika Winters Downey	American Institute of Steel Construction	X	Voting Alternate			
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)					
	D'Lane Wisner	D'Lane Wisner (Voting Alternate for William Carroll)					
	Mark Thimons	(Voting alternate for Erika Winters---Downey		X			
	John Cross	American Institute of Steel Construction (Voting Alternate					

		for Erika Winters--- Downey)					
TOTALS			22/30	23/30			
Visitors							
	Martha VanGeem	Self (Principal Engineer)	X				
	Kyle Thompson	IAPMO					
	Kelly Scanlon	U.S. EPA					
	Heather Dylla	National Asphalt Pavement Assn.					
	Wes Sullens	Stopwaste.org					
	Paula Melton	BuildingGreen, Ince					
	Christian Taber	Big Ass Consulting					
	Allison Kinn Bennett	U.S. EPA					
	Jay Thomas	Sika					
	Gary Madaras		X				
	Abby Brokaw		X				
	Dave Panning	BIFMA		X			
	Bradley Gramms	U.S. EPA		X			
Staff/Consultants							
	Michael Lehman	Chair	X	X			
	Vicki Worden	Executive Director, GBI					
	Emily Randolph	Secretariat Asst., GBI	X	X			
	Micah Thomas	Staff, GBI					
	Maria Woodbury	Secretariat, GBI	X	X			
	Chelsea Amaio	Staff, GBI	X	X			
	Kim Goldsworthy	Roberts---Rules Consulting	X	X			

Tuesday, July 19, 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, 1 member voted using a voting alternate (Mark Thimons for Erika Winters Downey). There were 4 members voting via proxy (Charles Kibert for George Thompson, Gord Shymko for Chris Dixon, Susan Gitlin for Don Horn, and Bill Freeman for Jane Rohde).

Administrative Procedures and Related Matters

Secretariat assistant Emily Randolph stated this meeting would be recorded for the purpose of recording minutes and that the recording would only be shared among staff members. There was no objection raised to the call being recorded.

Randolph informed participants that there are about 120 comments left to review and that at the current rate of progress it will take about 16 hours of meeting time to address these.

Chair Mike Lehman reminded participants that discussion should be related to the specific public comment at hand. Any new topics should be saved for New Business.

The agenda was reviewed and no changes were requested by the Consensus Body.

MOTION: A motion was made, seconded, and carried to approve the minutes from the previous Consensus Body Meeting on July 8th, 2016

None Opposed

Abstained: Susan Gitlin, Don Horn

Discussion of public comments

Subcommittee Reports:

Old Business presented by Mike Lehman

- **52 – 3. Substantive. 3.2.**
 - **Comment:** Revise the point allocation system such that each individual criterion, no matter what section it is located in, is granted a number of points that reflects its benefit to the environment.
 - **Reason:** We are concerned about the imbalance in the number of points available for the different assessment areas, as well as the number of points required for compliance in those areas. The justification provided in the Foreword is that the Consensus Body gave more points to those areas that it deemed to be of higher critical importance. Such an approach seems conceptually reasonable, but it is not clear that the actual application of the points truly reflects a risk--based evaluation nor that it takes into consideration the potential for overlap between the different sections. How did the Consensus Body determine that the criteria contained in the Energy section could benefit society 173% as much as the criteria in the Site, Materials, or Indoor

Environment assessment areas? For that matter, how did it determine that Site, Materials, and Indoor Environment were all of equal importance to society? If no clear method has been developed and applied to determine relative importance, the decision to give one area more points than another is difficult to justify.

As an example of the potential overlap, note that some of the criteria in the Site assessment area could have tremendous impacts on the energy use associated with a building. A study funded by USEPA showed that the energy required for transportation to and from a site can be as much as that used in the building itself. That particular study focused on residential buildings, but the overall point is that the location of a building is extremely significant in the calculations of the total energy use caused by any given building. Yet, the criteria that aim to reduce transportation energy use currently are allocated a total of only 22 points. What justification was used to determine that they are worth 3 fewer points than the criteria in the Metering, Monitoring, and Measurement section of 8.5 or 15 fewer points than the criteria in the Renewable Source of Energy section of 8.6?

One of the problems in the point allocation system is that, rather than evaluate all criteria independently, assessment areas are allowed a total number of points, and the criteria within that area compete with one another for points. Why not “free” each criterion from the confines of a point limit within a section and give it the number of points that reflects the potential benefits to the environment due to the activities described in that criterion?

Moreover, because the point allocation system is difficult to justify, it is all the more difficult to justify minimum achievement requirements based on that allocation system. The point allocation system creates a shaky ground...and yet section 3.2 uses that same system to build the next level. If it is important that each building constructed under this standard demonstrate some level of achievement in all of the areas, then we recommend that the minimum level of points be equivalent across the board. In cases where a certain percentage of the points are not applicable, then perhaps the minimum number of points could be reduced by some amount.

- **Proposed Response:** Reject. The Consensus Body allocated points to each assessment area based upon their impact on the environment in its professional judgment. With guidance from technical experts comprising the Subcommittees, Individual commenters have been afforded the opportunity to persuade both the subcommittees and the consensus body as to the relative importance of each subject area. Point awards reflect this process.

AMENDED MOTION [made on July 8th]: Reject. The Consensus Body allocates points to each assessment area based upon their impact on the environment in its professional judgment. With guidance from technical experts comprising the Subcommittees, Individual commenters have been

afforded the opportunity to persuade both the subcommittees and the consensus body as to the relative importance of each subject area. Point awards reflect this process.

AMENDMENT BY SUBSTITUTION [made on July 19th]: The amendment by substitution was made and seconded to amend the response to read: “Thank you for your comment. The Consensus Body will form a task group to re-evaluate the points system and provide recommendations. The public review draft will provide any changes that the review committee accepts.”

Discussion took place on the amended motion:

- It was clarified that the current system of point does not give points in appropriate amounts. This Standard currently provides incentives and disincentives in areas that may not be the best.
- It was stated that there are a lot of credits not yet awarded points that need to be figured out.
- It was stated that the points system has completely changed since the receiving Public Comments.
- One participant raised the point that there already was a committee to determine point allocations. The opinion was stated that there is no need to “throw this out and start over”. The counter argument was made that the Subcommittees should be making the reallocations and that there is no need to go to the top level to change this.

VOTE: The amendment by substitution carried with 15 in favor, 4 opposed, and 4 abstained.

Opposed: Charles Kibert, George Thompson, Gregg Bergmiller, and Jennifer Kowalonek

Abstained: Greg Johnson, Jeff Bradley, Doug Tucker, and Bill Carol

Discussion took place on the Substituted Motion:

- Clarification was requested that by using this response, the Consensus Body is creating a new Task Group to address point re-evaluation.
- It was stated that the Consensus Body should mirror the way the Resilience Group’s formation of task groups.
- Clarification was made that the amendment intended to remove the word “reject” and replace it with “Thank you for your comment”.
- Some participants spoke against the formation of more task groups.

AMENDMENT: The amendment was made and seconded to include the following in the response: “The Consensus Body will send this to the Executive Session for review.”

Discussion took place on the Amendment:

- Concern was raised that regardless of whether the Executive Session or a Task Group handles the point re-evaluation it will be just as much work. The opinion was raised that creating a Task Group will allow appropriate expertise to be on that committee outside of the Executive Session.
- The opinion was raised that the Executive Session should still make the decision, but there is room for others with experience that has been under-represented to participate to provide a balanced perspective.
- It was stated that if we want to relook at the points, it needs a fresh perspective as opposed to same group that did the points before and the speaker was in favor of a Task Group.
- It was clarified that the points in place now were decided by Consensus Body, not the Executive Session. It was proposed that if an Executive group were formed, two people from each section would be allowed on, so it would be balanced.

- Concern was raised that changes in point allocation will have ramifications for the second round of Public Comments. The question was raised whether it's too late in the game to be addressing this. It was stated that this is a comment that came from the first round of Public Comments and that it's irrelevant that it's being looked at now.
- The question was raised whether the task group is envisioned to look at points between groups or within.
 - Concern was raised about committing to either option and that the issue should be looked at to determine what needs to be done to address the major discrepancies in points.

VOTE: The amendment failed with in 7 favor, 12 opposed, 3 abstained

Opposed: Bill Freeman, Jane Rohde, Karen Joslin, Gary Keclik, Susan Gitlin, Don Horn, Kent Sovocool, Gord Shymko, Chris Dixon, Josh Jacobs, Thomas Pape, and David Eldridge.

Abstained: Gregg Bergmilller, Allan Bilka, and Mark Thimons.

VOTE: The amended motion with substitution carried with 14 in favor, 4 opposed, 4 abstained

Opposed: Jeff Bradley, Charles Kibert, George Thompson, and Greg Johnson.

Abstained: Gregg Bergmiller, Paul Bertram, Doug Tucker, and Bill Carrol.

ENERGY, Presented by David Eldridge

- **49 – 30. Editorial. 12**

- **Comment:** ASHRAE 90.1-2013 is listed multiple times as ASHRAE 90.1-2013 and ANSI/ASHRAE/IES Standard 90.1-2013. Need to delete one of these references
- **Reason:** Including both references will cause confusion; stick to the official name of the standard. Same for ANSI/ASHRAE/USGBC/IES Standard 189.1---2014.
- **Proposed Response:** Accept. ANSI/ASHRAE/IES Standard 90.1---2013 and ANSI/ASHRAE/USGBC/IES Standard 189.1---2014.will be used throughout the Standard.
- **Subcommittee Vote:** 7 in favor, 3 abstained.

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

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

None Opposed

Abstained: Allan Bilka

- **14 – 18. Substantive. 12.**

- **Comment:** American National Standards Institute (ANSI) ANSI/ASHRAE Standard 169---2013 Climatic Data for Building Design Standard
- **Reason:** Added in proposed change Taber1.
- **Proposed Response:** Reject. The Consensus Body rejected Taber1 so the reference to 169 is not used.
- **Subcommittee Vote:** 8 in favor, 1 abstained

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

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

None Opposed

None Abstained

- **24 – 14. Substantive. 8.3.2.1.1**

- **Comment:** Column 2 point values should not reference two separate versions of the same standards ASHRAE 90.1---2010 vs 2013 and 2012 vs 2015 IECC
- **Reason:** As noted in Comment 013, referencing multiple versions of the same document is not user---friendly.
- **Proposed Response:** Reject. The LPD values are generally lower in 90.1 – 2013 vs. 90.1---2010, thus each version of the 90.1 Standard must be listed separately and more points are awarded for compliance with the more stringent one. In addition, the language will be edited as follows, “The control factors from Table 9.6.3 in 90.1---2013 or Table 9.6.2 in 90.1---2010 may be are-used to achieve or exceed LDP targets.”
- **Subcommittee Vote:** 7 in favor, 1 abstained.

Motion: The motion was made and seconded reject according to the proposed response.

Discussion that took place on the motion:

- Clarification was requested that this doesn’t dismiss one level, but incentivizes people to use at least 2010 levels and rewarding further the higher 2013 level. It was stated that some jurisdiction are still at using 90.1 ---2004.

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

None Opposed

None Abstained

- **14 – 6. Substantive. 8.3.2.4.2**

- **Comment:** A minimum of 2% of the roof consists of skylights that are compliant with Section 5 of ASHRAE Standard 90.1---2010. Percentage is based upon horizontal area of floor plate of roof, not angled surface area.
- **Reason:** Skylights should not significantly contribute to the solar heat gain of a space or heat loss from the building, as this could increase the energy expended by the HVAC system. Requiring compliance with the U---Factor and SHGC requirements of Standard 90.1--2010 will reduce the risk of this occurring.
- **Proposed Response:** Accept with Modification. The text has been changed to read, “A minimum of 2% of the roof area consists of skylights that comply with the requirements in Section 5 and 9 of ASHRAE Standard 90.1---2013. Percentage is based upon horizontal projected area of the skylight and roof, without overhangs~~floor plate of roof, not angled surface area.~~” Additionally the second bullet in the points column has been struck.
- **Subcommittee Vote:** 8 in favor, 1 abstained

MOTION: The motion was made and seconded to accept with modification according to the Subcommittee’s proposed response.

Discussion that took place on the motion:

- The question was raised whether the subcommittee discussed this in relation to daylight controls.

AMENDMENT: The amendment was made and seconded to add “earning this credit is contingent on compliance with the daylight control credit [insert section #].”

No objections were raised to the amendment.

Discussion that took place on Amendment:

- Clarification was asked whether the intention of the credit is that the percentage of area is for a flat roof or if it applies to steep-sloped roofs as well. It was clarified that the current wording is for horizontal area of the roof.

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

None Opposed

Abstained: Allan Bilka and Mark Thimons.

- **21 – 7. Substantive. 8.5.1.2**

- **Comment:** Consider more options or clarification for sub-metering of multi-family housing projects. Sub-metering of plug loads, lighting controls, or major electric equipment isn't really applicable to individual apartments. But, credit could be given for each if the energy use of each apartment is metered and reported.
- **Reason:** I believe California will now require sub-metering and reporting for apartments as well as the overall total utility use for the property in multi-family housing projects. This could become a national requirement in the future.
- **Proposed Response:** Accept. Additional credit language has been drafted. "One point each for *submetering* five or more of the listed systems in a MURB at the building level to a maximum of 5 points.

Or

Two points each when heating, cooling, and electricity are submetered at the individual unit level in a MURB to a maximum of 5 points."

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

Discussion that took place on the motion:

- It was confirmed that the Subcommittee unanimously voted in favor of this.

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

None Opposed

Abstained: Bill Carroll

MATERIALS:

Comments presented by chair, Charles Kibert

- **52 – 40. Substantive. 10:**

- **Comment:** Green building standards should incentivize manufacturers to inventory and disclose the chemicals in their products. Possible sample language is presented below for rewarding manufacturers that develop and disclose complete chemical inventories ("X" ppm is listed as the reporting threshold, as the level will depend greatly on the chemical being reported).

Chemical Inventory

Credit shall be given for the specification and installation of products in the following building product categories --- paints, coatings, adhesives, sealants, elastomers, binders, spray and extruded polyurethane, polyisocyanurate, and polystyrene foams, pressed wood, plywood, and wallboard – that have a complete chemical inventory identifying substances used in the manufacture of a product and substances residing in the final product. Chemical constituents shall be inventoried as follows:

(a) Final Product Inventory: all chemical constituents intentionally added or otherwise known or anticipated to be present at "X" ppm or greater in a finished article.

OR

(b) Final Product Inventory for the formulated product or mixture: all chemical constituents intentionally added or otherwise known or anticipated to be present at "X" ppm or greater in a formulated product; with the exception that there is no inventory limit on chemical constituents present, including impurities and byproducts, which have been determined to be health hazards if there is evidence that the constituent(s) could be released from a product or released from use of a product in concentrations which could present a human health or environmental risk. See also OSHA MSDS listing requirements for workers at 29 CFR § 1910.1200(g)(2)(i)(C).

Each constituent included in an inventory of an article or a chemical formulation or mixture shall be identified by its unique Chemical Abstract Service (CAS) number and CAS nomenclature.

OR

(c) Life--cycle Inventory for the manufacture of an article: all chemical constituents intentionally added, to the extent known or reasonably ascertainable, in the manufacture of an article. An article is a manufactured item that is formed to a specific shape or design and the products final end--use function is dependent on the shape or design, with the exception of cutting; and, there is no change in chemical composition upon end use of the article or only those changes that has no commercial purpose separate from that of the article (NOTE: this is very similar though not identical to the EU/REACH definition of an article). The inventory shall identify, to the extent known or reasonably ascertainable, intermediate chemicals that may be wholly or partially consumed in the manufacture of an article and/or, process chemicals that may end up in manufacturing effluent or otherwise released if not intended to remain incorporated as part of the final product for the intended life of the product; and,

OR

(d) Life--cycle Inventory for the formulated product or mixture: all chemical constituents intentionally added, to the extent known or reasonably ascertainable, in the manufacture of a formulated product or mixture. A formulated product or mixture is one that is anticipated to further chemically react upon end use, such as paints, caulk, adhesives, etc. The inventory shall identify, to the extent known or reasonably ascertainable, intermediate chemicals that may be wholly or partially consumed in the manufacture of an article and/or process chemicals that may end up in manufacturing effluent or otherwise released

Transparency

In addition, to promote transparency of chemical constituents associated with the manufacture of a product and substances residing in the final product, specify products which have submitted their complete chemical inventory to a third party

for verification. Make the verification / certification document or documentation by the third party publically available.

OR (for additional points)

Publicly disclose a product's complete chemical inventory. This shall include all chemical constituents intentionally added or otherwise known or anticipated to be present at "X" ppm or greater in a formulated product; with the exception that there is no inventory limit on chemical constituents present, including impurities and byproducts, which have been determined to be health hazards if there is evidence that the constituent(s) could be released from a product or released from use of a product in concentrations which could present a health. See also OSHA SDS listing requirements for workers at 29 CFR § 1910.1200(g)(2)(i)(C).

- **Reason:** EPA would like to see green building standards encourage greater transparency via disclosure of chemicals. We recognize a number of challenges in doing so for manufacturers, including supply chain complexity and intellectual property confidentiality. However, in the interest of worker and consumer "right-to-know", we continue to promote more accurate and comprehensive communication across the supply chain in support of informed decision-making. Sound human health and environmental decisions regarding the manufacture, purchase, use and end-of-life management of products depend on reliable and accessible data on the human health and environmental impact of those products.
The following principles should be followed when attempting to incorporate product chemical substance inventories into voluntary consensus standards:
 - The chemical inventory should be as complete and comprehensive as possible, covering all chemicals, whether used intentionally or otherwise known to be present, in all life cycle stages of the product;
 - Each substance should be identified by Chemical Abstract Service (CAS) name and number, and weight percentage. Also include the identification of known impurities and byproducts;
 - Criteria should be consistent with federal regulations, including OSHA's Occupational and Health Hazard Communication Standards (29 CFR Part 1910); CPSC's Consumer Product Safety Act (CPSC) and Federal Hazardous Substances Act (FHSA); and, FTC's laws and guides prohibiting deceptive acts or practices, including deceptive representations in advertising, labeling, product inserts, catalogs, and sales presentations;
 - In cases where the compilation of a complete substance inventory is not feasible, the inventory requirements should take into account the following considerations:
 - The inventory should cover chemicals' life cycle stages thought to present the greatest hazards/exposures to workers, consumers, the general population, and environmental species, and
 - All known hazards and the concentrations of substances determined to have these known hazards should be reported, regardless of the concentration or whether the chemical's presence in the product/process is intentional. This includes, for example, the identification of impurities, byproducts, and any emissions from finished products or product curing steps.

- **Proposed Response:** Reject. The committee has incorporated constituent identification including percentages of each in Risk Assessment as stated in 10.3.
- **Subcommittee Vote:** 6 in favor, 3 abstained.

MOTION: The motion was made and seconded to accept the subcommittee’s recommendation.

VOTE: The motion carried with 15 in favor, 2 opposed, and 3 abstained.

Opposed: Susan Gitlin and Don Horn.

Abstained: Kent Sovocool, Josh Jacobs, and David Eldridge.

- **52 – 41. Substantive. 10:**

- **Comment:** Criteria in green building standards should reward manufacturers that are addressing current deficiencies and inconsistencies in safety data sheet reporting. For each product required by the United States Occupational Safety and Health Administration (OSHA) to have a safety data sheet (SDS), the SDS shall be submitted to the project team and/ or made publicly available.

For substances for which the manufacturer or supplier has developed an SDS consistent with the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS), only GHS-compliant SDSs (as described in the GHS Document, referred to as the “Purple Book”) shall be deemed to satisfy this requirement. For substances for which no GHS-compliant SDS is available, a report prepared within the previous five years in accordance with the NSF/GCI/ANSI 355 Greener Chemicals Products and Processes Information Standard shall be deemed to satisfy this requirement.

- **Reason:** Criteria in green building standards should reward manufacturers that are addressing current deficiencies and inconsistencies in safety data sheet (SDS) reporting for issues such as:
 - **Hazard and exposure control information**, which varies widely;
 - **Recommendations on respiratory protection**, which vary significantly;
 - **The possible need for respiratory protection for “adjacent workers,”** which few SDS mention;
 - **Adequate ventilation information**, which while needed frequently provides no guidance or suggestions on ventilation methods or what constitutes adequate ventilation
 - **Dermal (skin) contact concerns**, for when contact may cause an allergic reaction through sensitization, and
 - **Hazards are identified as “mechanical irritation”** but do not mention the possible presence of hazardous substance.
- **Proposed Response:** Reject. The SDS sheets are required. The NSF/GCI/ANSI 355 Greener Chemicals Products and Processes Information Standard is referenced in 10.3.1
- **Subcommittee Vote:** Unanimously in favor

MOTION: The motion was made and seconded to accept the subcommittee’s recommendation to reject the comment.

VOTE: The motion carried with 16 in favor, 2 opposed, and 1 abstained.

Opposed: Susan Gitlin and Don Horn.

Abstained: David Eldridge.

- **52 – 42. Substantive. 10:**

- **Comment:** Green building standards should incentivize product manufacturers to **assess chemicals** in their products. Possible Sample Language for a Complete Chemical Assessment is presented below:

Credit shall be given for the specification and installation of products in the following building product categories --- paints, coatings, adhesives, sealants, elastomers, binders, spray and extruded polyurethane, polyisocyanurate, and polystyrene foams, pressed wood, plywood, and wallboard – that have undergone a complete chemical assessment as follows:

All chemical constituents intentionally added, to the extent known or reasonably ascertainable, in the manufacture of a product shall undergo assessment, using one of the following screening---level hazard assessment tools (#1---4) and/or framework (#5) to consider the availability and use of safer alternatives:

1. EPA’s Sustainable Futures tool suite
2. EPA’s Safer Choice (formerly known as Design for the Environment or DfE) Program Standard and Criteria for Safer Chemical Ingredients
3. GreenScreen® for Safer Chemicals
4. SUBSPORT Restricted and Priority Substances Database
5. BizNGO’s Chemical Alternatives Assessment Protocol

Please note: a different, yet equivalently robust hazard assessment strategy using recognized and reliable data sources as identified by other parties during vetting of standard’s criteria may also be acceptable to the tools listed above.

- **Reason:** EPA acknowledges that the feasibility of a complete chemical assessment, and the specific tool to be used, will greatly depend on the product being assessed. As with the disclosure of a product's chemical inventory, chemical assessments should follow similar principles:
 - The chemical assessment should be as complete and comprehensive as possible, covering all chemicals, whether used intentionally or otherwise known to be present, in all life cycle stages of the product.
 - In cases where it is not feasible to conduct a complete assessment, the assessment should cover chemical life cycle stages thought to present the greatest hazards/exposures to workers, consumers, the general population, and environmental species.
- **Proposed Response:** Reject. The suggestion is to orient the Standard towards a hazard based approach that does not include the use or exposure of potential of the product or its constituents. This Standard has chosen to take a risk based approach that includes both conditions of usage and exposure potential.
- **Subcommittee Vote:** Unanimously in favor

MOTION: The motion was made and seconded to accept the subcommittee’s proposed response to reject the comment.

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

Opposed: Susan Gitlin and Don Horn.

Abstained: Kent Sovocool and David Eldridge.

- **52 – 58. Substantive. 10:**
 - **Comment:** Hazard Communication Plan

A comprehensive hazard communication plan shall be developed. The plan shall address the hazard communication methods that shall be used across the supply chain, including specifiers and other decision-makers and procedures to be followed during construction, operation, occupancy, maintenance, renovation, and demolition of a facility. The plan shall be consistent with the Occupational Safety and Health Administration (OSHA)'s hazard communication requirements found in Code of Federal Regulations (CFR) 29, Part 1900.1200 (or forthcoming requirements under the global harmonized system of classification and labeling of chemicals (GHS), anticipated to be adopted and codified by OSHA" see www.osha.gov/dsg/hazcom/ghs.html) and other federal, state, and local requirements.

Credit should be given to project teams that promote and communicate safe practices during the installation and use of chemical products known to possibly contain sensitizers and irritants.

Safe work practices shall be in place in order to protect workers and building occupants from exposure to chemicals sensitizers and irritants during and after installation of products that contain these hazardous chemicals

Safe work practice may include:

Preparation

- - - Review label and product information for ingredients, hazards, directions and precautions

- - - Applicators and helpers should be trained on technique and importance of personal protective equipment (PPE)

- - - Vacate building occupants and other trade workers who are unprotected During and After Application

- - - Anyone in the work site should wear protective equipment (skin/eye protection, respirator, etc.)

- - - Isolate and ventilate the work sites

- - - Follow established guidance on re-entry time for unprotected workers or occupants

- **Reason:** Green building standards should encourage practices to relay hazard communication across the supply chain (from the manufacturer through the architect, installer, building owner/ tenant).
- **Proposed Response:** Reject. The OSHA hazard communication program regulations are sufficient.
- **Subcommittee Vote:** Unanimously in favor.

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

Discussion took place on the motion:

- It was stated that the comment is just restating what every construction site already is required to do. The question was raised whether the response "Reject" was adequate. The opinion was expressed that this response was correct.

VOTE: The motion carried with 17 in favor, 2 opposed, and 1 abstained.

Opposed: Susan Gitlin and Don Horn.

Abstained: David Eldridge.

- **52 – 59. Substantive. 10:**

- **Comment:** Credit should be given for the use of EPA Safer Choice (formerly known as Design for the Environment or “DfE”) labeled products.
- **Reason:** www.epa.gov/saferchoice Safer Choice is now required for federal purchasing per EO 13693.
- **Proposed Response:** Reject. The EPA Safer Choice labeled products are based on hazard assessment and are not based upon types of usage and exposure levels that are inherent in the risk based approach utilized in this standard.
- **Subcommittee Vote:** 7 in favor, 2 abstained

MOTION: The motion was made and seconded to accept the subcommittee’s recommendation.

Discussion took place on the motion:

- The speaker stated that if or when EPA begins requiring this, they would support it. The speaker is in favor of risk-based evaluations.
- It was clarified that this is not required. Concern was raised that this is in conflict with the reason stated.

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

Opposed: Susan Gitlin and Don Horn.

Abstained: Kent Sovocool and David Eldridge.

- **30 – 5. Editorial. 10.3:**

- **Comment:** Last bullet point could use some further clarification. A step-by-step listing of the content requirements for a product risk assessment documentation would assist in understanding expectations and the information necessary for validation.
- **Reason:** None given
- **Proposed Response:** Reject. 10.3.2 already specifies the content of the product risk assessment report. No additional information was provided on how to improve 10.3.2
- **Subcommittee Vote:** 7 in favor, 1 abstained

- **48 – 10. Substantive. 10.3.2**

- **Comment:** The risk assessment certification report shall include:
 1. A publicly available report for the risk assessment that includes a description of the risk analysis identifying the risk for normal use reporting the exposure assumptions used.
 2. The chemical characteristics listed in in NSF/GCI/ANSI 355 utilized for human health and safety chemical characteristics and the ecological or environmental chemical characteristics applicable to internal (i.e., air) and external (i.e., air, water, and soil) considerations.
 3. The percentage (actual, estimated, or range %) of each constituent chemical in the formulation.
 4. The appropriate exposure scenario and default parameters for the intended product use utilized for the exposure models for specified products. If exposure parameters other than the default parameters are used, both scenarios shall be reported with documentation for the non-default parameters used.
 5. Utilize a color coded scheme for consistency of reporting supported by the

description of the basis for converting the risk result into the color scheme. The results of each risk assessment, based upon the NSF/GCI/ANSI---355 Chemical Characteristics shall be reported in a generic classification of Green (least risk), Yellow (second least risk), Orange (second most risk), and Red (most risk) and corresponding numeric values. 6. The building product manufacturer will have supporting documentation of the risk assessment calculation for the specified product being assessed for points. This documentation shall be available to the product specifier under appropriate confidentiality protections and shall include: a) Documentation for the calculation for the applicable routes of exposure (i.e., inhalation, dermal, oral) and exposure scenarios used in the calculation. b) The underlying assumptions and other relevant information needed for an authorized independent assessment of the risk analysis. c) Identification of the product ingredient and chemical characteristic that drove the risk analysis for acute and chronic exposures and the routes of exposure (i.e., inhalation, dermal, oral) Note: a different ingredient may drive each applicable route of exposure.

- **Reason:** This language should replace the remainder of the Recommended Documentation language for clarity. This also puts the responsibility on the product manufacturer and not on a third party assessor who may not have authorization to discuss the content of the assessments.
- **Proposed Response:** Reject. The suggested changes have already been incorporated through other comments.
- **Subcommittee Vote:** Unanimously in favor.

MOTION: The motion was made and seconded to reject both comments [30--5 & 48--10] based on Subcommittee proposals.

VOTE: The motion carried with 15 in favor, 2 opposed, and 3 abstained.

Opposed: Susan Gitlin and Don Horn.

Abstained: Kent Sovocool, Greg Johnson, and David Eldridge.

- **48 – 9. Substantive. 10.3.2**

- **Comment:** ~~In the public report, the specific product formulation does not need to be revealed. Formulation constituents may be grouped and identified by functional role, hazard grouping, or other descriptors of the product. For proprietary product formulation, ingredient and/or percentage need not be revealed. Instead formulation constituents may be grouped and identified by functional role, hazard grouping, or other descriptors for the product.~~
- **Reason:** The product manufacturer must declare functional roles for each ingredient and hazards based on authoritative screening lists. Reactive ingredients should be so stated, so that the end mixture is understood from an exposure standpoint and composition.
- **Proposed Response:** Accept as modified. “Leave in “in the public report”. The public report was part of the transparency that the committee was looking for.
- **Subcommittee Vote:** Unanimously in favor

MOTION: The motion was made and seconded to accept as modified per the Subcommittee’s recommendation.

VOTE: The motion carried with 17 in favor, none opposed, and 4 abstained.

None Opposed

Abstained: Susan Gitlin, Don Horn, Allan Bilka, and David Eldridge.

- **30 – 2. General. 10.3**

- **Comment:** Hexion Inc. fully supports a scientific risk based approach to understanding and characterizing the potential risk from exposure to whole building.
- **Reason:** None Given

- **30 – 3. General. 10.3**

- **Comment:** Hexion Inc. fully supports the use of a scientific risk based end product risk review versus individual component hazard assessment
- **Reason:** None Given
- **Proposed Response:** Accept as noted
- **Subcommittee Vote:** 7 in favor, 2 abstained

MOTION: The motion was made and seconded to accept the subcommittee’s recommendation to accept as noted.

Discussion took place on the motion:

- The question was raised whether the response has to say “as noted”. Concern was raised whether the commenter will be expecting some sort of change as a result of this response. It was stated that this is standard practice when responding to comments where no action can be taken.

VOTE: The motion carried with 16 in favor, none opposed, and 5 abstained.

None Opposed

Abstained: Susan Gitlin, Don Horn, Kent Sovocool, David Eldridge, and Karen Joslin.

- **11 – 12. Substantive. 10.3.1.1**

- **Comment:** General Comments – we strongly support the concept of a risk/exposure based protocol for materials assessment. Consider adding recognition of other equivalent consensus standards (ANSI) programs that may become available.
- **Reason:** There is full support of the transparent reporting protocol used by NSF/GCI/ANSI 355; Greener Chemicals and Processes information standard however the requirement should not be limited but rather allow recognition of other appropriate consensus based ANSI---approved risk---based standards.
- **Proposed Response:** Reject. Green Globes will be undergoing continuous maintenance and will, thereby, consider “other equivalent consensus standard (ANSI) programs that may become available,” when they become available.
- **Subcommittee Vote:** 8 in favor, 2 abstained

MOTION: The motion was made and seconded to accept the subcommittee’s recommendation to reject.

Discussion took place on the motion:

- The question was raised whether the proposed response was actually accepting the comment. It was clarified that there is no intention of modifying the language by responding the way we are.

VOTE: The motion carried with 20 in favor, none opposed, and 2 abstained.

None Opposed

Abstained: Kent Sovocool and David Eldridge.

- **18 – 12. General. 10.3.1**

- **Comment:** CPA strongly supports the concept of a risk/exposure based protocol for materials assessment.
- **Reason:** None Given
- **Proposed Response:** Accept as Noted
- **Subcommittee Vote:** 9 in favor, 1 abstained

MOTION: The motion was made and seconded to accept the subcommittee's recommendation.

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

None Opposed

Abstained: Kent Sovocool, David Eldridge, Susan Gitlin, and Don Horn.

-----15 minute break from 1:00 pm to 1:15 pm ET-----

- **12 – 2. Substantive. 10.1**

- **Comment:** Complete the list showing available points as a function of LCA reduction percentage.
- **Reason:** The credit is available for LCA improvements starting at 5% reduction, but your sliding scale for the points only covers the range from 15% to 25%.
- **Proposed Response:** Reject. There was a misunderstanding regarding the intent of the credit. The language has been clarified.
- **Subcommittee Vote:** 9 in favor, 1 abstained.

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 1 abstained.

None Opposed

Abstained: David Eldridge

- **12 – 1. Substantive. 10.1**

- **Comment:** "No more than one impact indicator exceeds the reference design, and it does not exceed the reference indicator by more than 5%."
- **Reason:** This is an unnecessary and counter-productive restriction on compliance which will likely result in very few projects able to earn this credit. A 5% change is lost in the margin of error, so it's a meaningless target. In addition, a 5% degradation in one impact measure can easily be a result in a building that otherwise achieves tremendous improvements in all the other measures. In other words, as written, this credit would be denied to high-performing projects that appropriately trade-off a loss in one measure for improvements in all others. This restriction violates and ignores a fundamental benefit of whole-building LCA, that is, the ability to evaluate and accommodate trade-offs.
- **Proposed Response:** Accept as Modified. The Committee replaced the entire sentence with "Other impact indicators do not exceed the reference design by more than an average of 5%."
- **Subcommittee Vote:** 6 in favor, 1 opposed, 3 abstained

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

Discussion that took place on the motion:

- The question was raised around how to arrive at an average of 5%.

VOTE: The motion carried with 16 in favor, 1 opposed, and 2 abstained.

Opposed: Mark Thimons

Abstained: Paul Bertram and David Eldridge.

- **7 – 13. Substantive. 10.1.1:**

- **Comment: 10.1.1** The project team evaluates a minimum of two different building designs using ASTM E2921 and the following assessment protocol and selects the building with the lower environmental impact.

Assessment protocol:

The life cycle assessment reports the following life cycle impact indicators:

- Global warming potential (GWP);
- Acidification potential;
- Eutrophication potential;
- Ozone depletion potential (ODP); and
- Smog potential.

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%.

Operating energy consumption and MEP systems ~~can~~ shall be included.

(Remainder unchanged)

- **Reason:** An LCA needs to be as comprehensive as possible in order to be truly representative of a whole---building comparison. By leaving out large impacts such as operating energy, the base building that is used for comparison to the proposed design will have a larger overall value for most impact indicators and especially on GWP, compared to a building where operating energy is included. Thus, the percentage change for an impact indicator will be larger. This can make the difference between meeting the 5% threshold versus not meeting it. In order to reduce gaming of the system, the standard should require operating energy and all materials that are part of the building to be included in the LCA. This will reflect a true whole---building analysis.
- **Proposed Response:** Reject. The language is consistent with ASTM E2921 and legal constraints preclude the use of the word “shall”.
- **Subcommittee Vote:** 7 in favor, 1 opposed, 1 abstained

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

VOTE: The motion carried with 17 in favor, none opposed, and 2 abstained.

None Opposed

Abstained: David Eldridge and Mark Thimons.

- **52 – 46. Substantive. 10.1.1:**

- **Comment:** Exclude operating energy consumption and MEP systems from the analysis.
- **Reason:** The Whole Building Life Cycle Assessment credit is included in the Materials chapter. The operating energy consumption, if dependent on lighting and appliance

efficiency, and MEP system efficiency, are largely unrelated to materials choices. By including operating energy consumption in the analysis, measures, such as increasing lighting and appliance efficiency, could improve the design building performance without the need to consider as many materials choices nor implement as many materials-related sustainability measures. Operating energy consumption and MEP efficiency are important, but measures associated with energy efficiency are already covered in a separate chapter, Chapter 8. In addition, Chapter 8 awards a greater number of points, 260 points, for energy efficiency measures, than chapter 10 does for materials selection, 150 points, dedicating as is, a greater incentive for increasing energy efficiency and a lesser incentive, overall, for the consideration of materials choices. There is no obvious need for the whole building life cycle assessment credit, which is included within the materials chapter, to encourage energy efficiency measures, and potentially multiply points for measures already implemented and awarded as part of the Chapter 8 award system.

- **Proposed Response:** Reject. The committee prefers to allow the flexibility of including this in accordance with ASTM E2921.
- **Subcommittee Vote:** Unanimously in favor

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

Discussion took place on the motion:

- There was clarification around what is meant by flexibility. It was stated that it can be included or not included with current Standards. It was also stated that by including, can that overwhelm proportionately the other small measures/components that might have less impact. .

VOTE: The motion carried with 16 in favor, none opposed, and 5 abstained.

None Opposed

Abstained: Jeff Bradley, David Eldridge, Mark Thimons, Susan Gitlin, and Don Horn.

General Comment on 10.1 & 10.2

- **56 – 15. General. 10.1 & 10.2:**

- **Comment:** BSR/GBI 01---201X no longer addresses direct ozone depleting potential (ODP) in conjunction with refrigerants, which is a Guiding Principles requirement for Ozone Depleting Compounds. Instead, ODP is part of the Life Cycle Assessment process related to construction materials found in BSR/GBI 01---201X, Sections 10.1 Whole Building Life Cycle Assessment and 10.2 Product Life Cycle.
- **Reason:** There has been a total industry shift concerning ozone depleting potential, and it has been close to 15 years since refrigerants with ODP have been available in new equipment. ODP has only been a consideration for major renovations with regards to an NC program, and it would be anticipated that most major renovation projects will replace equipment that is 15 years or older with new (non ODP) equipment.

ODP is still considered in the LCA process (BSR/GBI 01---201X, Section 10.1) with materials since ODP is one of the metrics of the LCA process. This is unrelated to the Federal Guiding Principles ODP requirement that is strictly about refrigerants.

- **Proposed Response:** Noted. The comment has been read and no action can be taken at this time.
- **Subcommittee Vote:** 8 in favor, 2 abstained.

MOTION: The motion was made and seconded to accept subcommittee's proposed response.

VOTE: The motion carried with 16 in favor, none opposed, and 5 abstained.

None Opposed

Abstained: Susan Gitlin, Don Horn, Allan Bilka, Jeff Bradley, and David Eldridge.

- **43 – 27. Substantive. 10.4.1.1:**

- **Comment:** Modify as follows:
Product Sustainable Attribute Material =
Pre---consumer recycled content
+Post-consumer recycled content
+Biobased content (for non-forestry materials)
+Third Party Sustainable Forestry Certification
- **Reason:** Forestry materials are double counted as both biobased and with a certification program. Biobased credit should only include non---forestry materials.
--- The current weighting will allow North American wood, which tends to meet the Third Party Sustainable Forestry programs, to receive twice as many points as a material with 100% recycled content (most products have much less than 100% recycled content). This implies that using wood does not have impacts on the environment compared to other materials, when it does have impacts. These include effects on biodiversity, land use, long term sequestration as well transportation, manufacturing, and construction impacts.

- **49 – 24. Substantive. 10.4.1.1**

- **Comment:** Add a qualifier to prevent double counting for wood under both biobased content and Third Party Sustainable Forestry Certification content
- **Reason:** Wood is 100% biobased and can be 100% with Sustainable Forestry Certification, therefore double counted

- **7 – 15. Substantive. 10.4.1.1:**

- **Comment:** 10.4.1.1 (First paragraph not shown)Points are awarded based on the following and final values reported by percentage:
Product Sustainable Attribute Material:
Pre---consumer recycled content
+Post-consumer recycled content
+Biobased content
~~+Third Party Sustainable Forestry Certification content~~

When entering values in the above formula, only the portion of those materials that have the identified value should be included. For example, if a product has 40% pre---consumer recycled content, only 40% of the value of that product is included.

Biobased content percentage may be calculated by weight or in accordance with ASTM D6866 – Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis. Percentage of Product Sustainable Attribute Material = (Total Product Sustainable Attribute Material)/(Total Material Value)

To receive credit as a biobased material wood products must be certified under one of the following forest certification systems are recognized:

- Forest Stewardship Council (FSC)
- Sustainable Forestry Initiative, Inc. (SFI)
- American Tree Farm System (ATFS)
- Canadian Standards Association Sustainable Forestry Management (CSA)
- Programme for the Endorsement of Forest Certification (PEFC)
- **Reason:** As currently written, wood products are allowed to be counted twice in this calculation --- once as a biomass and then again if they are certified under a recognized certification program. Not only does this create an unfair advantage between materials, it also fails to recognize the fact that wood that is not from sustainably managed forests is not a sustainable material, but rather a depleted resource.
- **Proposed Response:** Accept as Modified. “Products that are included in Third Party Sustainable Forestry Certification shall not be included as biobased content.” Double counting of criteria should not be encouraged within the system.
- **Subcommittee Vote:** Unanimously in favor

MOTION: The motion was made and seconded to accept the subcommittee’s proposed responses to 43--27, 49--24, and 7--15.

Discussion took place on the motion:

- It was stated that the language “not included” isn’t clear and that it really means that it shouldn’t be double---counted.
- Concern was raised that not every project is going to meet both of these thresholds.

AMENDMENT: The amendment was made and seconded to clarify the reason: **“Products that are claimed for credit under Third Party Sustainable Forestry Certification shall not also be included as biobased content.”**

There were no objections raised

VOTE: The amended motion carried with 21 in favor, none opposed, and 1 abstained.

None Opposed

Abstained: David Eldridge

• **43 – 26. Substantive. 10.4.1.1:**

- **Comment:** Modify as follows:
Product Sustainable Attribute Material =
Pre---consumer recycled content
+Post-consumer recycled content
+Biobased content
+Third Party Sustainable Forestry Certification
+Regional content (extracted within 1500 miles if transported via water and 500 miles if transported via land)
- **Reason:** Three reasons to support the addition of regional content:
 - Reduces impacts due to transportation
 - Stimulates regional/national economy
- Increases the likelihood, for a U.S. standard, that the material will be produced under the Clean Air and Water Act (pollution controls)/

- **Proposed Response:** Reject. The committee feels that the regional impacts are not as significant as other credit areas and has chosen not to include this criterion.
- **Subcommittee Vote:** 6 in favor, 3 opposed.

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

Discussion took place on the motion:

- It was stated that the regional aspect of this has impacts. i.e. fuel/energy transport, incentivizing returning manufacturing to the US instead of Mexico. The speaker was against the proposed response.

VOTE: The motion carried with 11 in favor, 7 opposed, and 4 abstained.

Opposed: Susan Gitlin, Don Horn, Gregg Bergmiller, Karen Joslin, Gary Keclik, Josh Jacobs, and Kent Sovocool.

Abstained: Bill Freeman, Doug Tucker, David Eldridge, and Jane Rohde.

- **39 – 3. Substantive. 10.4.1:**

- **Comment:** 10.4.1 Third Party Sustainable ~~Forestry~~ Certifications. The following ~~forest~~-certification systems are recognized:
 - Concrete Sustainability Council (CSC)
 - NRMCA SCP Sustainable Concrete Plant Certification
 - CSC Cornerstone Standards Council
 - CARES Sustainable Reinforcing Steel Certification
 - SustSteel
- **Reason:** There are a number of third party certification bodies being developed for the materials industry. We should not limit this to forestry. Other industry certifications with third party---verification should be given same weighting.
 - CSC Concrete Sustainability Council (<http://www.concretesustainabilitycouncil.org>)
 - NRMCA SCP Sustainable Concrete Plant Certification (<http://www.nrmca.org/sustainability/Certification/PlantCertification.asp>)
 - CSC Cornerstone Standards Council (<http://www.cornerstonestandards.ca>)
 - CARES Sustainable Reinforcing Steel Certification (<http://www.ukcares.com/certification/sustainable---reinforcing---steel>)
 - SustSteel (<https://www.steel-sustainability.org/esust>)
 - ANSI A138.1 Green Squared Specifications for Sustainable Ceramic Tiles, Glass Tiles and Tile Installation Materials;
 - ANSI/NALFA LF 02 Laminate Flooring Sustainability Standard;
 - NSF/ANSI 140 Sustainability Assessment for Carpet;
 - NSF/ANSI 332 Sustainability Assessment for Resilient Floor Coverings;
 - NSF/ANSI 342 Sustainability Assessment for Wallcovering Products;
 - NSF/ANSI 347 Sustainability Assessment for Single Ply Roofing Membranes;
 - UL 100 Sustainability Assessment for Gypsum Board and Panel Products;
- **Proposed Response:** Reject. The proposed certification systems don't line up with the attributes listed in this credit. Suggest the commenter resubmit this to 10.2. The committee feels they're more appropriate for that section.
- **Subcommittee Vote:** 9 in favor, 1 abstained

MOTION: The motion was made and seconded to agree with the subcommittee and reject the comment.

Discussion took place on the motion:

- The question was raised whether it's appropriate to ask the commenter to resubmit to another section. The speaker felt that the Consensus Body should defer the comment to the appropriate Section. Concern was raised that there's no way of knowing if the commenter had the intent that the Consensus Body would assume.
- It was stated that one participant tried to find the Standards referred to by the Commenter and couldn't. The speaker felt that the CB shouldn't suggest where the comment should be sent without knowing the commenter's intent.
- Concern was raised that commenters in the next round can't submit comments that don't refer directly to language that was changed (in strikethrough/underline format) in the Public Draft.

AMENDMENT: The amendment was made and seconded to strike "Suggest the commenter resubmit this to 10.2. The committee feels they're more appropriate for that section" from the response.

No Objections were raised.

AMENDMENT: The amendment was made and seconded to say, "The Consensus Body attempted to review the proposed standards and could not verify all of them. Those that we could verify don't line up with the attributes listed in this credit."

Objections were raised to the amendment:

- The question was raised as to whether the Subcommittee did this as a whole, adding that the speaker had done this themselves but cannot speak for the rest of the Subcommittee.

The Motion was withdrawn with no objections.

VOTE: The amended motion carried with 15 in favor, none opposed, and 2 abstained.

None Opposed

Abstained: Allan Bilka and Kent Sovocool.

- **2 – 2. General. 10.4:**

- **Comment:** There will be some credible sources of data that will make this a practical attribute in the standard. The USDA has a project that will provide bio-- based content information on many commercial wood products. Will GBI provide a directory of sources of that type of information?
- **Reason:** None Given
- **Proposed Response:** Reject. If the commenter would like to propose language for an informational references section, please do so.
- **Subcommittee Vote:** 10 in favor, 1 abstained.

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

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

None Opposed

None Abstained

WATER

Presented by Chair, Kent Sovocool:

- **56 – 10. General. 9.1, 9.2, 9.3, 9.4, 9.5 & 9.9**
 - **Comment:** WaterSense labels are included where applicable for the same requirements within the Guiding Principles for New Construction.

- **Reason:** None Given
- **Proposed Response:** Accept
- **Subcommittee Vote:** 4 in favor, none opposed, none abstained

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

Discussion took place on the motion:

- One speaker was against referring to proprietary Standards if possible, but felt that it was acceptable to refer to performance Standards within them if possible.
- There were questions around whether there is a parallel path for equipment that meets the same performance standards. The answer was that there is no explicit parallel track.
- There was concern raised about the exclusivity of needing a certain labeled product to meet performance. It was stated that Green Globes is also a proprietary label.

VOTE: The motion carried with 10 in favor, 2 opposed, and 5 abstained.

Opposed: Jeff Bradley and Greg Johnson.

Abstained: Allan Bilka, Paul Bertram, Mark Thimons, Gord Shymko, and Chris Dixon.

- **29 – 9. Substantive. 9.2 & 9.3**

- **Comment:** Points are stranded for buildings that don't have these types of systems. For 9.2 about cooling towers, there appears to be one option that gives credit for non---evaporative cooling in a building – is this meant to include air--cooled? If so, then this could have two paths – take credit for air---cooled, or do the efficient water---cooled options – I disagree with that, there is often a net improvement in energy efficiency with large water---cooled systems which reduces water use at the source of the electricity. If there were a way to enter a path where CT and boilers could be treated separately if they are present, and if not allow the points to be used for water harvesting or fixture efficiency that would be a great incentive to projects.
- **Reason:** None Given
- **Proposed Response:** Accept as modified. The language of the text and bullets has been revised. The intent of section 9.2.1.3 is to encourage conservation of evaporative losses from CTs by any manner of various hybridization approaches with non---evaporative modes (both integrated with the tower and separate) and is not intended to express a preference for air---cooled versus water---cooled at large. The language of the section is changed to try to clarify this more fully.
- **Subcommittee Vote:** Unanimously in favor

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

Discussion took place on the motion:

- It was noted that the points allocation will need to be revisited.

VOTE: The motion carried with 15 in favor, none opposed, and 2 abstained.

None Opposed

Abstained: Gary Keclik and Mark Thimons.

- **56 – 12. General. 9.2, 9.3, 9.4 & 9.6**

- **Comment:** These criteria within BSR/GBI 01---201X all address the Guiding Principles for New Construction requirement for Process Water.
- **Reason:** None Given

- **Proposed Response:** Accept as Noted
- **Subcommittee Vote:** Unanimously in favor

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

VOTE: The motion carried with 15 in favor, none opposed, and 1 abstained.

None Opposed

Abstained: Mark Thimons

- **33 – 5. Substantive. 9.6.1.1**

- **Comment:** Statement: “Water for non-----potable indoor uses is directly harvested on----- site (e.g., from rainwater, stormwater, foundation drain water, graywater) or reclaimed from on-----site treatment system(s)”
- **Reason:** As written, there is no explanation of “reclaimed”. Assuming this section has to do with on-----site sources, it needs to be expanded to say just that.
- **Proposed Response:** Accept as modified. The text in 9.6.1.1 will be changed to simply read “Non---potable water is used for indoor purposes.” The text in the points column will be modified as follows: “Points are earned based on the where a percentage of indoor water demands met with non---potable water: ~~water for non---potable uses will be harvested on---site or reclaimed:~~
 - Ten points are earned for greater than 75%.
 - Eight points are earned for 51-75%.
 - Six points are earned for 25%-50%.
 - Three points are earned for 15%-24%.
 - No points are earned for less than 15%.
 - Not applicable where the authority having jurisdiction prohibits the use of alternate sources of water for indoor applications.”

The definition of *water for non---potable uses* will be deleted, since the term no longer appears in the language.

- **Subcommittee Vote:** Unanimously in favor

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

VOTE: The motion carried with 15 in favor, none opposed, and 1 abstained.

None Opposed

Abstained: Mark Thimons

- **52 – 35. Substantive. 9.6.2.2**

- **Comment:** Establish a new subsection for alternate sources of water for outdoor uses other than irrigation. The alternative sources of water could be reclaimed, harvested or reused water, condensates, etc. They could be used for evaporative cooling, wash waters, and construction, e.g., cement or other materials that require water.
- **Reason:** The system should incentivize the uses of alternative water sources for outdoor activities excluding irrigation consistent with the points awarded for indoor uses of recycled or harvest rainwater. (5---10 points.)
- **Proposed Response:** Accept as modified. 9.6.2.1 has been revised. The committee is not establishing a new subsection, but changing 9.6.2.1 to incorporate other uses besides irrigation.
- **Subcommittee Vote:** 5 in favor, none opposed, none abstained.

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

Discussion took place on the motion:

- Concern was raised that the language “beneficial” is unclear.
- Further concern was raised that irrigation shouldn’t be optional. “Beneficial outdoor demand” will need to be clearly described. It was stated that the intent is good, but practicality is questionable.
- It was clarified that it would be irrigation when installed, plus additional outdoor demand.

AMENDMENT: The amendment was made and seconded to change the language to add, “...meet a percentage of the water use for irrigation where installed *plus* other beneficial outdoor purposes.”

There were Objections to the amendment.

Discussion took place on the amendment:

- One speaker was inclined to change the language to “include but not limited to”
- Concern was raised around the need for having irrigation. It was stated that Site Selection and plant selection can cause a site to not need any additional potable water. It was stated that it’s more efficient than someone using 20--39% water efficient yet the site gets no points. The speaker felt that the language should be “plant---watering needs”, not irrigation and the speaker stated they were against the amendment.
- Need to incentivize alternative sources of water even if sites aren’t using irrigation.

VOTE: The amendment failed with 6 in favor, 9 opposed, and 6 abstained.

Note: Some voters changed their votes from in favor to opposed stating that they felt they shouldn’t vote against what the water experts felt. Concern was raised about whether this was allowed and it was clarified that it was allowed.

Opposed: Thomas Pape, Susan Gitlin, Don Horn, Allan Bilka, Gary Keklick, Josh Jacobs, Kent Sovocool, Karen Joslin, and Jennifer Kowalonek.

Abstained: Gregg Bergmiller, Bill Freeman, Jane Rodhe, Paul Bertram, Jeff Bradley, and Mark Thimons.

AMENDMENT: The amendment was made and seconded to add “and remove the last bullet item” to the proposed response.

There were Objections to the amendment.

Discussion took place on the amendment:

- The sentiment was expressed that the Water subcommittee needs to go back and reconsider this issue entirely.
- Concern was raised that the issue was too confusing to make an informed vote.

MOTION: The motion was made and seconded to make this unfinished business at the start of the next CB meeting. There were no objections.

- Staff reported that 33 comments were reviewed on the call with less than 100 comments remaining.

MOTION: The motion was made and seconded to adjourn the meeting. There were none opposed.

---Meeting adjourned: 3:01pm ET---