



The Industry Voice for Workplace Solutions

minutes

**BIFMA Sustainability Assessment Standard Meeting**  
**Tuesday, May 16, 2006**  
**9:00 am - 5:00 pm Eastern Time**  
**and**  
**Wednesday, May 17, 2006**  
**9:00 am - 4:00 pm Eastern Time**  
**Holiday Inn Select**  
**3063 Lake Eastbrook Blvd. SE**  
**Grand Rapids, MI**

**Participants**

**INDUSTRY STAKEHOLDERS**

Brad Miller	BIFMA International
Tom Reardon	BIFMA International
Scott Steady	AQS
Mary T. Fraser	BASF
Chris Brandel	Bretford
Karen Worthy	Global Group
Fred Stevens	Group Dekko
Jim Kozminski	Haworth Inc.
Larry Dykhuis	Herman Miller Inc.
Matt Earnest	Interface Fabrics
Anne Saliers	izzydesign
John Shank	Kimball International
Kathy Jo DeVault	Knoll Inc.
Lou Newett	Knoll Inc.
Karen Smant	Milliken Fabric
Michael Zimmerman	Sauder Woodworking
Randy Carter	Steelcase Inc.
Mary Ellen Mika	Steelcase Inc.

Denise Van Valkenburg, Steelcase Inc.
Craig Bren Tuohy Furniture
Dave Freund Victor Innovatex

**INDUSTRY ORGANIZATIONS**

Janan Rabiah	ACT
Scott Miller	NAIMA

**GOVERNMENT**

Clare Lindsay, EPA, Office of Solid Waste
Shayla Workman EPA
Toni Stein State of CA DHS
JoAnn Jaschke State of CA IWMB
Laura Rauwerda State of MI DEQ

**OTHER**

Clinton Boyd, Sustainable Research Group
Bill Stough, Sustainable Research Group

**Welcome**

Bill Stough, from Sustainable Research Group and project manager for the BIFMA Sustainable Assessment Standard (BIFMA SAS) welcomed stakeholders to the May meeting.

Brad Miller of BIFMA conducted a role call of those present in person and those by telephone. The project manager gave a brief overview of the meeting agenda and described the proposed schedule for the next two days.

The morning of the first day was reserved for a general update on current and evolving issues related to the development of the BIFMA SAS. The remaining portion of the first day is allocated to presentations by each of the four work groups to the full group of stakeholders. The second day will start with a short general meeting to summarize the events of the first day, and then the four work groups will meet separately to continue their deliberations. The full stakeholder group will meet again prior to the end of the second day to coordinate their next steps prior to the June meeting.

### **Summary of the April Meeting**

The project manager listed the major questions identified from the April meeting, they included:

- How will the full stakeholder group vet individual work group progress?
- How will the BIFMA SAS integrate multiple levels and credits?
- Is each of the work groups addressing supply chain issues in a similar manner?
- What will be the final cost of a BIFMA SAS certification for a participant?

### **Review of April Meeting Minutes**

The project manager presented minutes from the April meeting and asked if there were any corrections or questions. There were none and the minutes were approved by consensus of those present.

### **Goals of the May Meeting**

The project manager described the goals of the May meetings as the following:

- Present the first iteration of the combined work of each of the four work groups into a draft master document;
- Continue the whole group review (vetting) process of individual work group progress began at the April Meeting;
- Seek full group feedback to identify areas of improvement or conflict; and
- Achieve a consensus from the full stakeholder group on how each work group should proceed and what to incorporate in the updated draft master document.

### **Individual Work Group Presentations**

The project manager described the process for the vetting process to assess the progress from the individual work groups. He asked each work group to present the scorecard for the area they are working on so the whole group can see the scope of the area they are researching. Afterwards, present the text of the credits in the guideline document that includes the credit, the intent, the requirements, documentation and any potential resources and tools identified. Representatives from each work group then reported to the assembled stakeholder session.

### **Water and Natural Resources Work Group Report**

Jim Kozminski from Haworth and Mike Zimmerman from Sauder Woodworking reported for the work group. The work group has identified two prerequisites and 23 credits. Prerequisite One covers the chain of custody for wood and wood veneer and Prerequisite Two covers design for the environment program elements. Credits include:

### **1.0 Wood and Wood Veneer, Certified Wood**

#### **2.0 Composite Wood Panels**

- 2.1 Recycled, recovered or rapidly renewable
- 2.2 Certified or post-consumer recycled

#### **3.0 Biobased (Need Input)**

- 3.1 Agrifiber based composite panels
- 3.2 Fabrics
- 3.3 Fabrics – (ACT level with point for recycled)
- 3.4 Others
- 3.5 Polymers
- 3.6 Adhesives and coatings
- 3.7 Foams

#### **4.0 Recycled Content of Materials**

- 4.1 Steel Content of 20 percent
- 4.2 Additional 10 percent
- 4.3 Additional 30 percent
- 4.4 Additional 50 percent

#### **5.0 Design Elements**

- 5.1 LCA used as a design tool
- 5.2 Labeling to facilitate recycling or reuse
- 5.3 Packaging elements
- 5.4 Appropriate Longevity – Proper durability
- 5.5 Dematerialization
- 5.6 Third party LCA

#### **6.0 Water Management**

- 6.1 Water Inventory of Factory
- 6.2 Water Inventory of Product
- 6.3 Water Use Reduction – 20 Percent Reduction
- 6.4 Water Discharges are Clean
- 6.5 Innovative Water Management Systems

### **Stakeholder Discussions**

A question was raised regarding the first prerequisite and if it should cover more than wood? Since the work group is addressing water and natural resources should the prerequisite cover a broader range of issues such as air, water, and waste management? A suggestion was made that the group consider using a life cycle thinking approach to the applicable scale of compliance regulations such as a significant citation of a local, state, national or international law or regulation. Using the 80/20 Rule, what are the 20 percent of activities that represent 80 percent of the concerns? Compliance could be defined at a pre-determined level to identify what a significant citation represents.

A following question was should the scope of the work product apply to just the OEMs or to the entire supply chain? All present agreed that the supply chain should be included, at least at the Tier One supplier level. Jim reported that the group tried to include a credit on the imbedded water impact from suppliers, but ultimately rejected this idea as too complex to work down the supply chain.

Several comments were made on how this group overlaps with the work of the Human Health and Ecosystem Health Work Group. Stakeholders suggested that the focus of the Water and Natural Resources Work Group should be more related to inputs and determining material efficiency or resource depletion, and the Human Health and Ecosystem Health should focus on outputs and emissions (e.g. credit 6.3 and 6.4 currently relate to emissions which overlap with the Ecosystem and Human Health Working Group). If the focus of the group were on material inputs and resource depletion it is then possible to formulate the prerequisites around legal considerations or the use of an environmental management system to determine minimum requirements. It was also noted that the group currently does not address waste generation which could be considered the reciprocal of material efficiency.

It was pointed out that a recent National Research Council report has shown that up to 70 percent of negative environmental impact of products occurs in the design phase. The design sets the embedded energy, types of materials, manufacturing processes and end of life aspects. Because of this, it was recommended to the group that they consider moving Credit Five - Design for the Environment closer to the beginning of the credits and use this concept to guide the rest of the work, keeping the design element at the front of the process.

The Work Group thanked stakeholders for their input and said they would address the suggestions and begin working on the recommendations at their next meeting. Jim then identified additional open questions the group has that they would like to take up with the full stakeholder groups in the future.

#### **Water and Natural Resources Open Questions (unresolved):**

- How do we determine the content of recycled and biobased materials?
- Should we follow the California suggestion and reduce credits for recycled steel because it is so ubiquitous?
- Most standards place post-industrial below post-consumer – should we do the same?
- How should we address the Genetically Modified Organism (GMO) issue?
- Don't presume that biobased is inherently better; need a comparative LCA analysis of all items being considered.

#### **Energy Efficiency and Renewable Energy Work Group Report**

John Shank from Kimball International and Anne Saliers from Izzydesign reported for the work group. The work group has identified one prerequisite and 20 credits. The prerequisite covers the development of an energy policy program. Credits include:

##### **1.0 Building Energy Inventory**

- 1.1 Single Manufacturing Facility
- 1.2 50 percent of Owned/Operated Facilities
- 1.3 100 percent of Owned/Operated Facilities

##### **2.0 Energy Performance**

### **3.0 Raw Materials**

- 3.1 Determine Embodied Energy in Raw Materials
- 3.2 Reduce Embodied Energy by 10 Percent in Raw Materials

### **4.0 Components**

- 4.1 20 Percent of Suppliers Determine Energy Levels
- 4.2 20 Percent of Suppliers Reduce Energy Levels

### **5.0 Product Manufacturing**

- 5.1 Determine Process Energy Used to Produce Product
- 5.2 Reduce Process Energy Used to Produce Product by 10 Percent
- 5.3 Reduce Process Energy Used to Produce Product by 20 Percent

### **6.0 Finished Product Energy Consumption**

- 6.1 Lighting Meets California Title 24
- 6.2 EnergyStar Motors Used

### **7.0 Transportation**

- 7.1 Carrier & Shipper Develop Strategies to Reduce Fuel Consumption and Air Pollution
- 7.2 Carrier & Shipper participate in EPA SmartWay Program

### **8.0 Green Energy**

- 8.1 Use of Green Energy for 5% Total Energy Requirement of Owned/Operated Buildings
- 8.2 Use of Green Energy for 10% Total Energy Requirement of Owned/Operated Buildings
- 8.3 20% of Suppliers Use Green Energy for 1% of Total Energy Requirement

### **9.0 Generated On-Ste Green Energy**

- 9.1 20% of Suppliers Use Green Energy for 1% of Total Energy Requirement
- 9.2 Produce Green Energy for 1% of Total Energy Requirement

## **Stakeholder Discussions**

A question was asked regarding the scope of the prerequisite. The work group responded by saying it is intended to cover the availability of an overall corporate policy statement on energy performance.

In Credit One what constitutes a building energy inventory? Response from the work group suggested establishing a baseline of energy use; credits are intended to be flexible to account for differences in the number of facilities (tiered to accommodate size of business). It was noted that energy inventories can be expensive and time/resource intensive. The work group included in the Resources Section the EPA EnergyStar program which has developed tools to reduce the time and expense of conducting assessments.

In Credit Two how do you achieve building energy performance? The work group responded by indicating that the EnergyStar rating provides tools and gives guidance on how buildings are defined. The goal is to have the standard cover all buildings you have control over and includes leased buildings. Stakeholders suggested that additional guidance is required to clarify the term “control,” the example was given of a product that used five facilities to manufacture the final product. Where does control begin and end? The work group agreed to look into this further. In Element 2.1 a change was recommended to the existing wording from “associated with BIFMA products” to “meets the scope of the BIFMA SAS.”

The question of how to determine the embodied energy for raw materials was asked. It was suggested that the BIFMA SAS would need to be coordinate with the National Center for Manufacturing Science (NCMS) on the database being developed to address this item. The flow of materials needs to have a goal in the database of quantifying the embodied energy at least at the macro-scale. It was agreed to work with the NCMS to address this issue.

The question of how to determine future energy performance improvements was raised. One suggestion was to establish a baseline year and then use it to calculate if a reduction of 10 percent was achieved to receive a credit. .

Part of the work group's scorecard included a matrix that identified the level in the organization the credit affected including supply chain issues. A stakeholder asked "how far into the supply chain does a participant have to go to achieve the desired credits?" After discussion, a consensus developed to use the guideline defined by the Social Responsibility Work Group, that is consider only tier one suppliers defined as 75 percent of the product "buy" in dollars.

The project manager asked the work group if they thought the link between energy and climate should be strengthened to account for higher awareness of greenhouse gas (GHG) issues. The work group agreed that even though GHG was embedded in the credits and that more could be done to make the goal of reduction visible. It was reported that the American Society of Quality is developing a GHG standard, tentatively labeled as ISO 14064 and stakeholders should be aware of its existence.

## **Human Health and Ecosystem Health Work Group Report**

Denise VanValkenburg from Steelcase presented information from the work group. She said they have not allocated credits yet and still have to develop the details for each intent statement. Some of the issues the group is working on include whether to include worker health and safety requirements that do not overlap with the Social Responsibility Group, and if they require an EMS as a prerequisite, should it be a certified EMS or just evidence of having a formal (documented) EMS? Most of the stakeholders thought that the inclusion of an EMS was an appropriate prerequisite under this category. A question regarding how accidental releases would be addressed was raised, and the response was that if an EMS were established as a prerequisite, it would be covered there. The Responsible Care program of the American Chemistry Society was also identified as an option for a prerequisite.

Denise confirmed from discussions earlier that from here on, the work group would focus on the emission (output) side of the issue, while the Water and Natural Resources Work Group looks at the input side of the issue.

Laura Rauwerda from the Michigan Department of Environmental Quality presented a simplified Life Cycle Assessment structure of impact categories and gave a brief overview that included information on:

1. resource depletion
2. ecosystem health; and
3. human health followed by homogenous stressor categories for the work group to consider.

Denise then presented definitions and the 12 principles of green chemistry, and the work group agreed to expand green chemistry to include green engineering in their work. A consensus of stakeholders agreed that life cycle thinking would be the primary conceptual framework as the group moves forward. She identified a potential open question: How should the standard incorporate a list of Chemical of Concern (CoC) as an appendix in order to keep the list updated in a timely manner?

## **Social Responsibility Work Group Report**

As the Social Responsibility Work Group made a detailed presentation to the whole stakeholder group at the April meeting, Mary Ellen Mika from Steelcase gave an overview on her work on the supply chain credit. She recommended a collective approach to supply chain looking at the issue from a corporate point of view. The most current draft of Credit Six calls for 75 percent of a product's direct materials spend within a specified time period would define the supply chain elements necessary to obtain a credit. 75 percent of the direct spend on material for a product would come close to 20 percent of total number of suppliers for Steelcase. Other OEMs agreed this seemed reasonable and a good way to proceed.

## **Stakeholder Discussions**

A discussion regarding how to approach the supply chain impact of the standard ended in a general agreement among stakeholders that there is a need to develop a consistent approach for all of the work groups and that it seemed more meaningful to focus on the percent of money spent instead of a specific number of suppliers affected.

The proposed 75 percent of total spend for a product within a specified time period was agreed upon as a good starting point for all work groups to use as a reference point as the BIFMA SAS process moves forward. A question was asked about what the 75 percent spend covers, and stakeholders agreed that the calculation would not include services or capital equipment purchases and would be restricted to only Tier 1 suppliers.

## **Wednesday, May 17, 2006**

### **Welcome**

Bill Stough, project manager for the BIFMA Sustainable Assessment Standard (BIFMA SAS) welcomed participants to the second day of the stakeholder meetings. He conducted a role call of those present in person and those by telephone and then gave an overview on the highlights from the Tuesday, May 16<sup>th</sup> session, by listing the following achievements:

- The Water and Natural Resource Work Group will develop a new prerequisite that is more holistic for the area assigned and may encompass compliance issues or possibly a connection with legal issues and an environmental management system. They will also move Design for the Environment (DfE) considerations earlier in the process and concentrate on material

inputs and material efficiency (resource depletion/ life cycle thinking) as a major focus of their work.

- The Energy Efficiency and Renewable Energy Work Group will work with the project manager to help find a neutral definition for alternative (green) energy, and the work group will develop guidance on how to establish an energy baseline to compare future progress.
- The Human and Ecosystem Health Work Group will continue collaboration with BIFMA's Furniture Emission Standard Committee to ensure a consistent approach for both efforts and to inform each other of progress, and work on identifying a Chemicals of Concern List for the business and institutional furniture industry.
- The Social Responsibility Work Group reported on an approach that looked at the supply chain's involvement for achieving credits based on an approach that defines the supply chain as Tier One Suppliers that account for 75 percent of the material purchasing spend amount in dollars. Other work groups adopted this approach as a common definition to use.

The project manager gave an update on progress made on the following activities that resulted from the April meeting:

1. Stakeholders developed a list of major business and institutional furniture manufacturing processes and materials and sent the list to Paul Chalmers at NCMS to review. Dr. Chalmers developed his taxonomy from the information and submitted it back to stakeholders for their review. His flowchart and materials were reviewed and the following additions suggested:
  - a. Add the following processes to Pre-facility
    - i. Textiles
    - ii. Plastics
    - iii. Casting
  - b. Add ultraviolet to finishing processes
  - c. Add waste management to the post-facility processes
2. Larry Dykhuis from Herman Miller agreed to research and report back on potential certification levels and a corresponding point system. He offered the following recommendations:
  - a. Four levels of certification, minimum points per level are – Level One 35 points, Level Two 48 points, Level Three 61 points, and Level Four 74 points;
  - b. Manufacturer can define the scope of the product line and geographical locations (locations the certification covers and does not cover) ;
  - c. Certification documentation by certification agency (see full document "*Certification Levels and Scope of Certification Proposal*," 05 09 06 Draft.

There was positive feedback on the recommended point system but no formal action taken. There was a general discussion on a proposal to weight the four categories giving percent to Social Responsibility; 25 percent to Energy Efficiency and Renewable Energy; 30 percent to Water and Natural Resources and 30 percent to Human Health and Ecosystem Health. Stakeholders agree to consider this recommendation in future deliberations
3. The project manager will develop a discussion paper on Life Cycle Assessment (LCA) impacts on the BIFMA SAS process. Stakeholders suggested that we should work closer with NCMS on this issue and should integrate LCAs into the energy area especially regarding embedded energy.

4. The project manager explained that the BIFMA website would now house the master document and will be available for continuous access. The project manager and BIFMA staff will update the master document with new information at the end of each monthly meeting which will then become the reference document for all stakeholders until the end of the next monthly meeting. He recognized that work groups would continue to move forward with changes as they progress in their work, but the master document will not be updated until the conclusion of the next monthly meeting.

The work groups separated into breakout sessions to continue their work for the remaining portion of the day. At 3:00 p.m. all work groups reconvened into a general session to summarize their progress.

### **Closing Session Summary of Work Group Progress**

*Human and Ecosystem Health Work Group* – Denise VanValkenburg from Steelcase reported that the group is integrating the supply chain as defined earlier into the group’s work. One of largest issues the group is trying to resolve is to identify a list of “chemicals of concern” (CoC) specific to the business and institutional furniture industry. Work group members will solicit input from stakeholders and work with NCMS and Dr. Clinton Boyd of Sustainable Research Group to help establish the list. An additional work group meeting will be held on May 31<sup>st</sup> to work on the CoC list.

*Water and Natural Resources Work Group* - Jim Kozminski from Haworth reported that the group agreed to integrate the DfE approach to the development of credits. The group has developed a list of unanswered questions and suggested that a list of open questions be developed from all of the work groups and that time be allocated at the next meeting to obtain feedback from the full group of stakeholders. The project manager agreed to develop a full list and set aside time on the June meeting agenda for stakeholders to respond to questions on the list.

*Energy Efficiency and Renewable Energy Work Group* – Chris Brandel from Bretford Manufacturing reported the group is working on integrating suggestions made at yesterday’s full stakeholder session, including supply chain issues and is working on clarifying greenhouse gas impacts in the credits.

*Social Responsibility Work Group* – Larry Dykhuis from Herman Miller reported that the group is modifying and clarifying language in the Intent/Requirement sections of the guidance documentation. He also supported the need for developing a list of open questions and suggested the topic of third-party certification be placed on such a list for discussion at the next meeting.

The project manger thanked everyone for participating in the May Stakeholder meeting. Brad Miller from BIFMA notified stakeholders that the June meeting may be held at NSF in Ann Arbor and additional information would be made on the location as soon as possible.

The meeting adjourned at 3:45 pm. Minutes submitted by Bill Stough, Sustainable Research Group.