

# Achieving LEED® Points

## LEED-CI Environmental Quality (EQ) Credit 4.5 Option C

### How To Get the Credit

For customers interested in attaining the US Green Building Council (USGBC) LEED-CI Environmental Quality (EQ) Credit 4.5 for low emitting furniture, specify systems furniture and seating product tested to BIFMA Test Method M7.1 which meets the requirements of BIFMA Standard X7.1 as verified by an independent laboratory. The USGBC recently approved an Option C within the EQ 4.5 credit through a credit interpretation request (CIR).

### Where to Find Details on the Credit Interpretation

To view the USGBC Credit Interpretation Request (CIR) and ruling, log into the USGBC website at <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=168&>, then search the CIR database. The BIFMA PEIACP is listed under CI EQc4.5.

### 7/12/06 USGBC Ruling:

The use of systems furniture and seating tested to BIFMA method M7.1-2005, which meets the requirements of BIFMA Standard X7.1-2005, as verified by an independent laboratory, will be acceptable as a compliance path for LEED-CI EQ Credit 4.5. Please see the specifics of this new compliance path as noted below.

Under “Requirements” Option C shall be added as follows:

Calculated indoor air concentrations that are less than or equal to those established in Table 1\* for furniture systems and seating determined by a procedure based on BIFMA M7.1-2005 and X7.1-2005 testing protocol conducted in an independent third party air quality testing laboratory.

Under “Submittals” a paragraph shall be added as follows:

For systems furniture and seating tested using a procedure based on the BIFMA protocols, provide documentation from an independent laboratory where the testing was conducted demonstrating that emissions limits have not exceeded those shown in Table 1.\* Documentation of specific products or product groupings with restrictions (if applicable) must be identified, dated and signed by an officer of the independent product testing laboratory and/or an independent third party certifier. Test results must represent the manufacturing processes and materials employed for the product at the time of project submittal. Tests must have been completed before the start of the manufacturing but no earlier than 2 years prior to the last manufacturing date.

*\*See Table 1 in the LEED-CI v2.0 Rating System as it relates to both Options B and C.*

### Summary of Information to Include:

- State that the testing and modeling were conducted according to BIFMA M7.1/X7.1
- That the product passed the emissions criteria in X7.1
- Date testing was conducted

- What the testing represented (e.g., representative worse case for a product line, a specific SKU, etc)
- If applicable, include any limitations or exclusions (e.g., specific facility, wood finish options, etc)
- The documentation must be dated and signed by an officer of the test lab
- The manufacturer should document that the manufacturing period occurred within the 24 months of the test date.

**LEED-CI EQ 4.5 Option C  
BIFMA Furniture Emissions Standards (FES)  
Fact Sheet**

- What:** LEED-CI EQ 4.5 Option C -- a new, alternative compliance path for achieving credit for low-emitting materials, systems furniture and seating products using the BIFMA Furniture Emissions Standards; an open consensus project which included input from architects, designers, laboratories, scientists, researchers, manufacturers, and governmental agencies.
- When:** Option C was approved by the U.S. Green Building Council on July 12, 2006, as an alternative to LEED-CI EQ 4.5 Options A and B. The BIFMA Furniture Emissions Standards were issued in September, 2005.
- Why:** Indoor air quality continues to be a concern to customers, as well as manufacturers. BIFMA's goal was to provide a consistent and transparent process for testing, measuring and determining conformance for furniture emissions. The USGBC's acceptance of the BIFMA FES validates that goal.
- Impact:** The USGBC's ruling of Option C as an alternative compliance path for achieving the LEED-CI EQ 4.5 credit opens up testing and certification to multiple qualified labs and certification bodies. By expanding the choices available to customers, specifiers and manufacturers, Option C facilitates more accessible indoor air quality testing and validation, a faster overall certification process, and more competitive certification program costs.
- Who:** The BIFMA Furniture Emissions Standard (FES) subcommittee, comprised of representatives of 16 BIFMA member organizations, developed its new standards with assistance by Dr. Jianshun (Jensen) Zhang, of Syracuse University. Dr. Zhang is a leading scientist in the field of emissions chamber testing, with more than 18 years experience in building ventilation and indoor air quality. He is the primary author of two American Society for Testing and Materials (ASTM) standards for emissions testing, helped to develop the Environmental Protection Agency (EPA) Environment Technology Verification (ETV) protocol during advanced emissions research at the National Research Council of Canada, and developed a world class emissions testing facility at Syracuse University.
- Additional participants and technical reviewers included representatives from the State of California Department of Health Services, Air Quality Sciences, Berkeley Analytical Associates, National Research Council of Canada, and the U.S. EPA Air Pollution and Control Division, among others.