



The Industry Voice for Workplace Solutions

news release

For Immediate Release

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ANSI Approves BIFMA Furniture Emissions Standards as American National Standards

The Business and Institutional Furniture Manufacturers Association (BIFMA) International has announced formal American National Standard Institute (ANSI) approval and release of the following two standards for volatile organic compound (VOC) emissions from office furniture:

- *ANSI/BIFMA M7.1-2007 Standard Test Method for Determining VOC Emissions from Office Furniture Systems, Components and Seating, and*
- *ANSI/BIFMA X7.1-2007 Standard for Formaldehyde and TVOC Emissions of Low-emitting Office Furniture Systems and Seating*

These voluntary national standards provide manufactures, specifiers, and users with a basis for characterizing the initial release of various airborne chemicals emitted from a furniture workstation and seating. The standards are based upon the combined experience of the office furniture industry, build on all publicly available chamber testing documentation, leverage the technical expertise of multiple laboratories, and follow the technical leadership of leading chamber emissions testing experts in North America. M7.1 contains detailed information regarding product sample selection and handling, the testing methods, air sample collection, and so forth, while X7.1 includes the conformance criteria defining “low-emitting” product.

“Receiving formal ANSI approval of these standards is the culmination of years of development, research and consensus building effort. ANSI approval ensures that a broad and diverse group of stakeholders have had the opportunity to participate in the development and their comments have been appropriately addressed”, said Thomas Reardon, BIFMA’s Executive Director.

The ANSI/BIFMA Furniture Emissions Standards have been adopted by the U.S. Green Building Council (USGBC) as part of the LEED for Commercial Interiors rating system, the Scientific Certification Systems Indoor Advantage™ program, the NSF International indoor air quality certification program, and partially adopted by the Greenguard Environmental Institute. These standards are also included in the Whole Building Design Guide, Federal Green Construction Guide for Specifiers. The M7.1 test method has been adopted by the States of California and Minnesota as part of their state office purchase criteria for office furniture and is also currently being considered for inclusion within the Collaborative for High Performance Schools (CHPS) Low Emitting Materials requirements.

“Harmonizing VOC emissions test standards with the latest open science provides a common platform to build upon,” said Randy Carter, Chairman of the BIFMA Furniture Emissions Subcommittee and a Principal Engineer at Steelcase Inc. “These standards have cascading benefits extending well beyond the office furniture industry”.

About BIFMA

BIFMA is a not-for-profit organization that provides an effective forum for Members to cooperate and collaborate on appropriate industry issues. As an ANSI accredited standards developer BIFMA develops voluntary product and industry standards that support safe, healthy and sustainable work environments. BIFMA also publishes key industry statistics; advocates for legislation and government regulation that have a direct impact on the health of the industry; and facilitates meaningful dialog and education to support our core services and the industry.

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Additional Background

Office furniture manufacturers have been testing for product emissions for over 15 years. BIFMA efforts to develop furniture emissions standards began in 1994 at the request of the General Services Administration. BIFMA later partnered with the U.S. EPA and the Research Triangle Institute to create the *EPA RTI/ETV Large Chamber Emissions* test protocol in 1999. BIFMA emissions standards work struggled to achieve industry consensus through 2003.

In early 2004 the BIFMA board of directors assigned furniture emissions as a top priority for BIFMA and work commenced at an invigorated pace. The BIFMA Furniture Emissions Standard (FES) subcommittee followed an aggressive schedule, accepting a proposal from Dr. Jianshun Zhang of Syracuse University to lead development of an open, scientifically based chamber test method. Dr. Zhang and the FES subcommittee involved a peer group of scientists as reviewers of Dr. Zhang's work. Dr. Zhang reviewed test data spanning 15 years, as shared by multiple office furniture manufacturers in support of this standard development.

The FES subcommittee completed ground-breaking research on over 5,000 workstations in customer building floor plans to determine representative worst-case workstation configurations for emissions, using the latest minimum outside airflow requirements from the American Society for Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Standard 62.1-2004. This work is documented in a research report that was presented in July 2006 at the U.S. EPA / Air and Waste Management Association conference on Indoor Environmental Quality: Problems, Research, and Solutions. This research report has also been successfully peer reviewed through ASHRAE, was presented at the ASHRAE annual conference in June 2007, and is being published in the respected publication *ASHRAE Transactions* in late 2007.

During development, the FES Subcommittee partnered with Dr. Zhang of Syracuse University to conduct extensive research into the repeatability and reproducibility of the BIFMA M7.1 Test Method and the viability of modeling test results from seven day testing to determine compliance at a 14-day time point. This work included a round-robin study with the following laboratories:

- Syracuse University
- U.S. Environmental Protection Agency
- Berkeley Analytical Associates
- Forintek
- Material Analytical Services

The results of this work strongly support the BIFMA M7.1 Test Method and also provide recommendations for future revisions of the BIFMA furniture emissions standards.

If you are interested in additional information please contact Tom Reardon, BIFMA Executive Director, at 616-285-3963, or Randy Carter, Chairman of the BIFMA FES Subcommittee at 616-698-4186.