

The Maturing of Sustainability

uilding owners and facilities managers, government agencies, architects and other specifiers are continually looking to improve the performance of buildings. Not only are they looking to improve the energy usage of a facility, but they are looking at the entire footprint to minimize the negative impacts and enhance the positives of building design, construction, and maintenance.

Sustainable building design can take many forms and utilize many different approaches to obtain similar performance results. But, regardless of what design actions are taken or what products are used, profit is a key criterion for sustainability: If an act is not profitable, it is not sustainable.

Although such green design programs as LEED and Green Globes have been in existence for years to assist design professionals in improving building performance, individual building product suppliers have recently pursued further development of sustainability standards for their specific product categories. Carpet, wallcoverings, and resilient flooring are some examples of American National Standards Institute (ANSI) standards that have recently been published, and an ANSI standard for single-ply roofing membranes is expected to be approved and published soon.

Development of the Single-Ply Sustainability Standard

In June 2007, development of the single-ply roofing sustainability standard began with the Vinyl Roofing Division of the Chemical Fabrics and Film Association (CFFA) filing a Project Initiation Notification through NSF International with ANSI. NSF International is an independent, not-for-profit, nongovernmental agency that specializes in standards development and maintenance activities.

The services of a consultant also were retained to assist the CFFA in shepherding the process. CFFA members participated in committees organized to develop guidelines for each category within the standard. Typically, the overall steering committee met by phone or in person twice each month to assure things stayed on track.

Other subcommittee categories included product design, innovation, product manufacturing, long-term value, and progressive corporate governance. The subcommittees, which met regularly to go through the intensive process, were charged with developing the guidelines that would be followed within the related category of the standard.

The subcommittees submitted their drafts to the CFFA in October 2008. At that time, a joint

> review committee was organized to include five members - each from the user/consumer category, public, industry, plus members from each company in the Vinyl Roofing Division. The joint committee met monthly for more than a year to iron out specifics of the standard. Along the way, regular calls for comments from consumers, public, and industry were issued, and those comments were addressed and voted on by the re-



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In addition to his role as general manager for Duro-Last's central U.S. facility in Iowa, Drew Ballensky is company spokesman for Duro-Last's cool roofing, sustainability, and architectural education programs. He is past-president of the Chemical Fabrics and Film Association (CFFA) and chairman of CFFA's Vinyl Roofing Division, and has more than 30 years' experience in various engineering and managerial capacities.



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view committee. The final ballot of the committee occurred in late 2011, with release by ANSI for publication planned for spring 2012.

The main reason for such an extensive standard development process was (and continues to be) to assure the creation of the most complete, functional standard possible through a process that is transparent and interactive for all constituents.

Highlights of the Single-Ply Sustainability Standard

Formally known as "NSF 347 Sustainability Assessment Standard for Single-Ply Roofing Membranes," the standard is divided into five subject categories, with a point-based scoring system. The 128-point scale in the five categories is allocated, as follows:

- Product Design 44 points.
- Product Manufacturing 39 points.
- Membrane Durability 38 points.
- Corporate Governance 7 points.
- Innovation 7 points, maximum.

Achievement levels to the goals of NSF 347 have been submitted for approval, as follows:

- Conformant 35 points, minimum.
- Silver 45 points, minimum.
- Gold 56 points, minimum.
- Platinum 75 points, minimum.

Looking Ahead

In the most positive sense, product standards are intended to improve the overall level of product performance. It is important to understand, however, that a standard is only as good as its lowest common denominator. Standards go through a rigorous, time-consuming, transparent process to become accepted by standards development bodies, such as ANSI or ASTM International. While there is the risk that higher-performing products could reduce their specifications to lower levels and still meet the standard, under-performing products would also need to improve their performance to meet the standard.

Green design programs, sustainability standards, building codes, and high-performance building guidelines need to continually go through processes of evaluation and modification in order to improve and grow with changes in technology. As the sustainability movement matures, facilities and design professionals need to recognize that some tried and true building products and designs may need to be revisited to see if they still have a place in fulfilling the promise of true high-performance buildings.