EDUCATION INTERIORS
Furniture That Makes the Grade
“Airing” on the Side of Caution
PLUS: Tile & Stone Special Section
Design Collaborative: The Magnificent Seven
KI and designers Paul James and Dan Cramer team up once again to create Solstice 7, a collection designed to bring comfort to users of all stripes.
By Janet Wiens

Focus: Welcome Home
Visitor centers become an important design focus for universities as they vie for the attention of prospective students.
By AnnMarie Martin

Photo Essay: The Studio is in Session
Gensler creates a stunning new graduate facility for the New York School of Interior Design that fosters community and collaboration, and embodies the essence of the “studio” atmosphere.
By Robert Nieminen

Photo Essay: Library Science
Perkins+Will transforms UCLA’s Charles E. Young Research Library into a sustainable, high-tech environment where talking is actually encouraged.
By Adam Moore
With LEED 2012 just months away from its final release, many questions about the revised rating system and its impacts on the built environment hang in the balance. One of the most widely talked about potential changes to LEED involves the Indoor Environmental Quality (IEQ) credit category.

"As it is currently written, LEED 2012 transforms what has long been a simple, user-friendly, easy-to-understand credit (IEQ Credit 4.3 - Low-Emitting Materials) into one that is complex, time-consuming and difficult-to-understand," says Mark Rossolo, director of public affairs for UL Environment, a business unit of UL (Underwriters Laboratories).

Now dubbed "Low-Emitting Interiors," the revised product emissions credit could require that LEED users complete eight pages' worth of complicated mathematical formulas and analyze product emissions data—all just to calculate a product's eligibility to satisfy the credit. Compounding matters is that the credit is now worth fewer points than it was in LEED 2009, dropping from four to three.

"The worry is that many LEED users will simply avoid the credit altogether, opting instead to pursue credits that aren't as time- or labor-intensive, and that are worth more points," Rossolo adds.

"Without the use of low-emitting interior products, the indoor air quality (IAQ) of LEED certified buildings—and that includes schools—could suffer."

**CARE ABOUT THE AIR IN SCHOOLS**

The issue of IAQ in schools is a critical one. According to the U.S. Environmental Protection Agency (EPA), studies show that one-half of America's schools have problems with the quality of their indoor air, including poor ventilation and pollution. This means that a staggering 50 percent of schools pose significant health risks to the students, teachers and staff that occupy them. The risks are especially high among children.

Compared to adults, children are more prone to experiencing adverse health reactions to poor indoor air quality, including cough, wheezing, asthma and other respiratory complications. This increased susceptibility to health problems is linked directly to children's physiology: compared to adults, they inhale a greater quantity of air (and thus a greater amount of airborne pollution); their heart rate is faster, resulting in a more rapid metabolism of chemicals and other pollutants; their vital organs and systems are immature and under-developed; and their close proximity to the ground puts them in closer contact with pollutants like dust, dirt, pollen and chemical molecules.

Chemical emissions from interior products—which can include formaldehyde, toluene and other toxins—are a major contributor to indoor air pollution, particularly in new or remodeled buildings. From walls and ceilings to flooring, and furniture, every product used in the construction, build-out and decoration of an indoor space has the potential to emit chemicals. This becomes particularly problematic when working within a tight building envelope, as measures to increase energy efficiency can lead to less ventilation and ultimately a build-up of airborne toxic chemicals.

Repeated exposure to chemicals among children is particularly concerning, as the cumulative health effects of such exposures are simply not known. Of the more than 80,000 chemicals in commerce today, less than 3 percent of them have been evaluated for their health impacts, according to a recent report by Environment and Human Health, Inc.

"We think it makes more sense to err on the side of caution and limit our children's exposure to chemicals whenever possible," says Henning Bioch, executive director of the GREENGUARD Certification Program, a service of UL Environment that sets stringent product emissions standards and certifies products to those standards. "Why risk it?"
Creating Low-Emitting Classrooms

Studies cited by the EPA show that good indoor air quality in schools is linked to improved student test scores, decreased absenteeism and increased productivity. The importance of creating and maintaining good indoor air quality is undeniable.

For new or remodeled spaces, good indoor air quality begins with design, and continues through product use and facility maintenance. Thus, much of the responsibility for ensuring a healthier learning environment rests with the architect or designer; he or she should specify as many scientifically-tested, third-party certified low-emitting products as possible. In addition to flooring, interior paint and insulation, these products should include low-emitting classroom seating, desks and casegoods, all of which have the potential to off-gas significantly.

The specification of low-emitting products has, in the past, been fairly simple for LEED users—they needed only to look for products bearing one of the following certification marks, per the U.S. Green Building Council (USGBC): Green Label Plus, FloorScore, GREENGUARD Children & Schools Certified, NSF 140/332 or SCS Indoor Advantage Gold. Because these certifications indicate that a product has been tested for compliance with a credible, third-party product emissions standard, users of LEED 2009 have spared the burden of having to calculate a product’s emissions performance on their own (generally a complex, highly technical task).

Unfortunately, LEED 2012 is poised for release with the omission of nearly all direct references to third-party certifications and labels—the very tools that help specifiers identify compliant products with ease and confidence. Instead, LEED 2012 users will find themselves having to rely only on raw data provided by the manufacturer, which they must then use to solve a series of complex equations.

“LEED is intended to simplify green building so that environmentally responsible building design and construction practices can be easily adopted. This unnecessarily complicated Low-Emitting Interiors credit in LEED 2012 could actually hinder progress toward that goal—and, on top of that, result in less healthy spaces inside LEED-certified buildings,” says Bloech. “We sincerely hope that the USGBC and its indoor environmental quality technical advisory group will reconsider its decision to eliminate references to third-party ecotags in LEED 2012. This is about one thing, and that’s the healthfulness of our built environments.”

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