

CHILDREN'S HEALTH

School Siting: EPA Says Location Matters

Fifty-three million U.S. children and 6 million employees spend much of the day in a public or private school.¹ Pollution problems in these settings are so widespread that the Congress mandated in the Energy Independence and Security Act of 2007 that the U.S. Environmental Protection Agency (EPA) develop model guidelines for choosing healthier sites for new schools. On 17 November 2010, the agency released a draft of its new voluntary guidelines.^{1,2}

About 1,900 new schools were built in the 2008–2009 school year, according to the EPA, continuing a relatively similar construction trend since 2002³ and bringing the total number of public and private schools to about 135,000.¹ The number of existing schools in settings that could be harmful to children is unknown, says Peter Grevatt, director of the EPA Office of Children's Health Protection.

The guidelines are designed mainly for use in siting new primary and secondary (K–12) schools, but the principles behind the guidelines could be adapted for many other existing and new settings where children spend long periods. They cover a wide range of topics, including toxicity on the school site and from nearby properties; other health-related issues such as bicycle and pedestrian access to increase student exercise; maximizing community use of the school; and minimizing disruption of relatively undisturbed environments.

Jason Hartke, vice president of national policy for the U.S. Green Building Council, is generally pleased with the congressional mandate and EPA's actions so far. "There is a strong need for EPA guidelines," he says. "This is another really important tool in the toolbox" for creating healthier schools.

Stephen Lester, science director for the Center for Health, Environment & Justice, also is generally supportive: "There's a lot

of good information in these guidelines." But he says they offer too much wiggle room for allowing schools to be built on toxic sites, such as Superfund properties. He'd rather see language that sanctions such decisions only as a very last resort. That's important, he says, because school districts "never have enough money for monitoring and maintenance," even if the original planning, design, and engineering for mitigating toxicity problems were deemed acceptable. He also would prefer a no-exceptions guideline that directs use of the more-protective cleanup standard for residential use for all school sites.⁴

A broader concern is that many school districts may choose to ignore the voluntary guidelines. Interest in environmental health issues "is very spotty," Lester says, especially when so many other issues—including site availability, zoning, and cost—are high priorities. Even in the U.S. Green Building Council's LEED (Leadership in Energy and Environmental Design) voluntary certification process for schools,⁵ toxicity issues account for only 10 of the 110 optional points.⁶

The public can comment on the draft guidelines until 18 February 2011. A final version is scheduled for release in late 2011.

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REFERENCES AND NOTES

1. EPA. School Siting Guidelines [website]. Washington, DC:U.S. Environmental Protection Agency. Available: <http://tinyurl.com/2euzxzn> [accessed 8 Dec 2010].
2. The EPA can't set mandatory regulations for siting schools, since local jurisdictions typically have that authority, but federal, state, and tribal governments can intercede when possible violations of various laws are involved.
3. Abramson P. School Planning and Management, 15th Annual School Construction Report (Feb 2010). Dayton, OH:Peter Li Education Group. Available: <http://tinyurl.com/23en8cd> [accessed 8 Dec 2010].
4. A residential cleanup standard is more protective than a commercial cleanup standard in part because it assumes children will spend more time on the property.
5. U.S. Green Building Council. LEED 2009 for Schools New Construction and Major Renovations Rating System. Washington, DC:U.S. Green Building Council (updated 2010). Available: <http://tinyurl.com/239wyxk> [accessed 8 Dec 2010].
6. The LEED baseline criteria stipulate that old landfill sites should be completely avoided and that contamination from other former uses should be cleaned up to meet the most stringent appropriate standard. One point is available for siting a school on a remediated brownfield site, which critics such as Lester say should be done only as a last resort. Nine points are available for reducing vehicle use to lessen emissions or increase student exercise via bicycling or walking. Eight points are available for meeting other site criteria addressed by the EPA guidelines, such as utilizing existing roads and utilities, avoiding 100-year floodplains, protecting or restoring habitat, and encouraging joint community use of school facilities.

and are toxic to fish and other aquatic life, have been increasing in recent decades. Being able to determine the source of these PAHs will help in the design better ways to manage them. Some U.S. municipalities have already banned coal tar sealants.

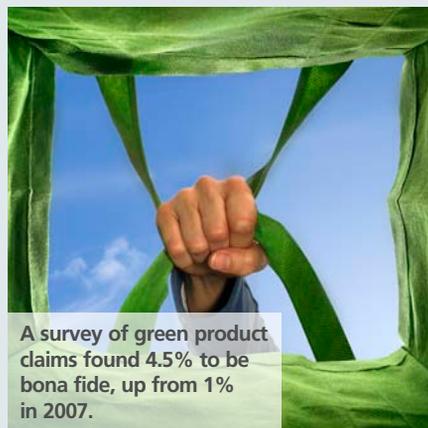
Ford Cottons to Recycling

Ford Motor Company recently announced its 2012 Ford Focus models will use carpet backing and soundproofing materials made from recycled cotton denim.⁴ Cotton production can have a large environmental footprint, and clothing and other textiles represent about 4% of municipal solid waste.⁵ Each car will use an amount of postconsumer cotton equal to the amount in two pair of jeans.⁴

Greenwashing Update

"Greenwashing" is the term for ads and labels that promise more environmental benefit than they deliver.⁶ The third in a series of reports by TerraChoice

Environmental Marketing finds that marketers are getting better at substantiating claims of "greenness" about their products.⁷ The number of self-described green products tallied on shelves increased 73% between 2009 and 2010, with 4.5% of such products making credible claims. In 2007, only 1% of the claims made by surveyed products could be



verified. One area where marketing claims have skyrocketed is in products claiming they have no bisphenol A (up 577% over 2009) or no phthalates (up 2,550% over 2009).

REFERENCES

1. NRDC. Gulf Coast Seafood Consumption Survey. Washington, DC:Natural Resources Defense Council (2010). Available: <http://tinyurl.com/24b3mhx> [accessed 10 Dec 2010].
2. EPA. Second National Bed Bug Summit [website]. Washington, DC:U.S. Environmental Protection Agency (updated 9 Dec 2010). Available: <http://tinyurl.com/23sfmd8> [accessed 10 Dec 2010].
3. Van Metre PC, Mahler BJ. Contribution of PAHs from coal-tar pavement sealcoat and other sources to 40 U.S. lakes. *Sci Total Environ* 409(2):334–344 (2010); doi:10.1016/j.scitotenv.2010.08.014.
4. Ford Motor Company. A perfect fit: recycled clothing finds a new home inside next-generation Ford Focus [press release]. 30 Nov 2010. Dearborn, MI:Ford Motor Company. Available: <http://tinyurl.com/34ffp67> [accessed 10 Dec 2010].
5. Claudio L. Waste couture: environmental impact of the clothing industry. *Environ Health Perspect* 115(9):A449–A454; doi:10.1289/ehp.115-a449.
6. Dahl R. Greenwashing: do you know what you're buying? *Environ Health Perspect* 118(6):A246–A252 (2010); doi:10.1289/ehp.118-a246.
7. TerraChoice Environmental Marketing. The Sins of Greenwashing: Home and Family Edition. London, UK:TerraChoice Environmental Marketing (2010). Available: <http://tinyurl.com/2d89tx8> [accessed 10 Dec 2010].