

# Healthy Schools Network, Inc.

## Invited Testimony

US Senate Committee  
on  
Environment and Public Works

Full Committee Hearing  
on  
Green Buildings:  
Benefits to Health,  
the Environment, and the Bottom Line

May 15, 2007



**US Senate Environment and Public Works Committee Hearing** on Green Buildings: Benefits to Health, the Environment, and the Bottom Line, Washington, DC.



**US Senate Hearing Panel** (*from left to right*) Robert F. Fox, Fox and Cook, Architects; Peter Templeton, US Green Building Council; Claire Barnett, Healthy Schools Network; Ray Tonjes, Ray Tonjes Builder, Inc.; Ward Hubbell, Green Building Initiative.



**Captions from left to right:** Senator Frank Lautenberg, High Performance Green Buildings Act of 2007 bill sponsor; Senator Barbara Boxer, Chairman, Environment and Public Works Committee; Senator James Inhofe, Ranking Member, US Senate EPW Committee; Senator Lamar Alexander, EPW Committee.

## Statement

Claire L. Barnett, MBA  
Executive Director, Healthy Schools Network

Good morning. Thank you Senator Boxer and Senator Inhofe and members of the Senate Committee on Environment and Public Works for the opportunity to talk about children's environmental health and how the our nation's non-green and very unhealthy school buildings undermine children's health and learning, and what we can do together to promote healthy school environments for all children.

My name is Claire Barnett. I am Executive Director of Healthy Schools Network, Inc., and the Coordinator of the national Coalition for Healthier Schools. Healthy Schools Network is a not for profit research, information, education, and advocacy organization that seeks to ensure that every child has an environmentally healthy school. The national Coalition provides "the platform and the forum" for healthy school environments, endorsed by over 500 organizations and individuals nationwide.

Today, 54 million children are required to be in our nation's 120,000 schools. Yet, every day brings another report of lead in school drinking water; schools sinking into landfills; closures due to mold infestations; evacuations and ER trips prompted by chemical spills; schools on toxic sites; chemicals in closets from the 1840's; and hard-working parents told by family doctors to keep their children out of unhealthy schools.

We know that children are uniquely vulnerable to environmental contaminants. They breathe more air, drink more fluids, and eat more food than adults. Their developing systems are more vulnerable to environmental toxins, and their behaviors, such as sitting on the floor, may also put them at risk.

Focusing on just one set of common school pollutants, EPA estimates that half of all schools have Indoor Air problems which can be 5-100 times more polluted than outdoor air. Air pollution is a major contributor to asthma, the leading cause of school absenteeism and the leading occupational disease of teachers. That means teachers get it on the job. Other health effects from indoor air include respiratory problems, poor concentration, rashes, headaches, and nausea. Any child or adult can be affected. Now think of the rapidly rising numbers of high risk children in school today with chronic health and learning problems. They may be even more affected.

One answer is a **BACK TO BASICS** approach that deliberately designs out common problems and designs-in solutions to restore fresh air and sunshine to our schools.

Benefits include improved achievement, health, attendance, teacher productivity, and operational savings. Various recent studies have found that healthier indoor environments can achieve an 87%

reduction in flu; 67% reduction in Sick Building Syndrome; 46% reduction in upper respiratory problems; and 39% reduction in asthma. These are stunning statistics. Healthier schools have generated these numbers by “designing out” IAQ problems and “designing in” solutions. They use materials that do not off-gas toxic chemicals, use well-designed ventilating systems, keep buildings dry, and incorporate features such as radon-proofing and pest-proofing, and use durable, easy to maintain flooring systems. A high performance school will reduce absenteeism and still save up to 40% of the building’s energy costs.

Communities are making smart choices to build healthy, green schools. Governors in California and New Jersey have issued Executive Orders. New York City schools just adopted new green, high performance school design standards (LEED plus NY-CHPS), following the lead of Los Angeles and the states of New York, Washington, Massachusetts, and New Hampshire.

A 2006 National Research Council report “Green Schools: Attributes for Health and Learning” found that “there is a robust literature” in indoor environments and children’s health. *Please note that the federal Education Dept has not yet reported to Congress on its similar 2004 National Priority Study.*

The hard sciences show that children do better in school buildings with certain qualities:

- **Dryness**: buildings should be mold-resistant and kept dry
- **Good indoor air quality**: air pollutants, humidity levels, heat, and ventilation must be controlled
- **Quietness**: noise is related to student's learning and ability to develop language skills. We note that excessive noise may also be related to aggression.
- **Well-maintained systems**: means commissioning of new buildings and routine preventive maintenance of existing buildings. *Buildings do not take care of themselves. Schools are more densely occupied and more heavily used than commercial offices.*
- **Cleanliness**: routine cleaning is critical. *Basic best practices in prevention such as "green cleaning" and "less-toxic pest control" are cost-effective and minimize chemical and IAQ risks to school occupants.*

How does one parent, one teacher, or a volunteer school board member find out how to design and operate a healthy school?

Fortunately, US EPA has created a suite of proven healthy school environment best practices and has encouraged them locally with

small grants. Today, in our view, the best way to rapidly accelerate the numbers of children and communities benefiting from healthy and high performance schools is to encourage state activity.

Thus we support the High Performance Green Buildings Act that would establish a federal office on green buildings and authorize EPA to give grants to qualified state agencies to build information and technical assistance systems to-- promote high performance school design and help resolve environmental problems. EPA should also create model school siting guidelines.

In summary, there is no downside. Every child and every community should have a Healthy, High Performance School.

Thank you.