



# Recommendations



## Recommendations for LEED Reform

### ■ Simplify the Scoring System

The Green Building Council (GBC) should simplify the LEED scoring system within categories. Rather than issuing awards of “platinum,” “gold” and so on, the GBC should require performance within each category (health, energy, sites, neighborhoods, etc.) on a 0–100 scale. These scoring changes would provide a more accurate reflection of project performance, while encouraging developers to improve within all categories—and scoring standards would be more easily understood.

### ■ Diversify Certification Categories

Offer separate certification in the fields of health, energy, sites and neighborhoods. All of these categories are now grouped together, and some are more heavily weighted than others in the overall scoring system. If the GBC judged and scored a project’s performance in separate categories, developers would have an incentive to score high in all categories. This requirement would also correct the current and common misimpression that certified LEED buildings perform well in all categories.

### ■ Green Building Council Board Expertise

The GBC Board should have significantly greater professional expertise in health and environmental science. For example, only one director among 25 has formal medical, epidemiological and toxicological training. This imbalance on the board reflects LEED’s present priorities of energy conservation, site planning, comfort and innovative design—with health components trailing way behind. The limited importance that the GBC has placed on environmental health is also reflected in the scoring system, in which less than 7 percent of the total score may be earned in this category.

### ■ Encourage Use of Building Products Made From Safe Chemicals

LEED credits should be offered for the use of products made from chemicals known to be safe, while credits should be deducted for use of products containing known hazardous substances.

### ■ Create and Update Minimum Health Protective Requirements

Create and routinely update minimum health protective requirements, now within LEED's "indoor environmental quality" category. The following are suggested:

- Prohibit the use of chemicals that are persistent and those that bioaccumulate.
- Prohibit the use of tobacco products within and near all LEED-certified buildings.
- Prohibit indoor use of the more toxic "restricted-use" pesticides, unless a public health authority finds that a more significant health threat would be created by using a less toxic but less effective compound.

### ■ Performance Data Transparency

Maintain a database that tracks project performance in all categories through the period of certification. These data should be freely available on the internet.

### ■ Environmental Testing

Indoor air quality testing of PM<sub>2.5</sub>, PM<sub>1</sub>, ozone and VOCs should occur at specified intervals following occupancy. Special attention should be paid to areas with non-operable windows. No such testing is now required post-occupancy. Require drinking water quality testing for metals, pesticides, plastic resins and chlorination by-products at specified intervals. No LEED testing of drinking water is now required. The results of all testing should be available on the internet at no additional cost.

### ■ Pesticides

Indoor applications of registered pesticides should occur only if physical and biological control has been attempted and found to be ineffective, and if a public health authority has determined that the health risks from the pesticides would be less than the target pests. The GBC should also require that occupants receive prior notification of the pesticide used, its chemical content and toxicity, as well as timing and methods of chemical application.

### ■ GBC Should Encourage Federal Testing of Chemicals in Building Products

The absence of any federal requirement to disclose ingredients in building products makes it impossible to understand the chemical composition of the built environment. Similarly, the failure of the federal government to require toxicity and environmental fate testing of chemicals in building products makes it impossible to certify “indoor environmental quality.”  
*For more information about chemical hazards, see Appendix III, page 60.*

For these reasons, the GBC should encourage the federal government to require the identification of hazardous, persistent and non-recyclable chemicals within building materials, furnishings and cleaning products. It should also encourage Congress to demand chemical toxicity and environmental fate testing.

Agencies that maintain peer-reviewed lists of known hazardous products include the EPA, the National Center for Environmental Health, the National Toxicology Program and the Agency for Toxic Substances and Disease Registry (ATSDR). EPA also maintains a list of insufficiently tested chemicals. Without federal testing, LEED has no authority or ability to deduct points for the use of unlabelled building products or those that have been insufficiently tested, making a determination of hazard or safety impossible.



# Recommendations for the Federal Government

*The effectiveness of the Green Building Council's (GBC) LEED program and the legitimacy of LEED certification critically depend upon the ability of developers to be able to identify hazardous chemicals in the built environment, and to prevent dangerous exposures. New federal law will be necessary to accomplish this. The failures of the Toxic Substances Control Act (TSCA), described previously in this report, must be corrected. We suggest the following key provisions for a national healthy building policy.*

## ■ National Building Product Chemical Registry

The Green Building Council could not possibly be expected to keep track of the chemical content of all available building materials. The federal government should assume this responsibility and maintain a national registry of the composition of building products, furnishings and cleaning products.

The registry should also be used to record and update chemical testing status and product recyclability. The federal government should also create and maintain a single database that identifies chemical toxicity, level of hazard, common sources of exposure, and an assessment of the adequacy of data used to support these classifications. The best model for keeping these records is the Agency for Toxic Substances and Disease Registry's "Toxicological Profiles."

## ■ Chemical Testing

All chemicals used to form building products should be tested to understand: a) the hazards they pose to human health; and b) their environmental fate.

New chemicals should be tested to be sure they meet safety standards before entering commerce. Existing chemicals should also be tested, while nearly 60,000 are currently exempted from testing under TSCA provisions.

Given the enormity of the chemical testing problem, EPA should focus on those chemicals that meet most of the following: a) basic toxicity testing; b) persistence and bioaccumulation; c) demonstrated and common presence in indoor air, water supplies, building products and human tissues; d) volume of chemical produced annually; e) plausibility of relation to human illness; and f) structural similarity to substances known to induce illness in humans.

### ■ Burden of Proof

The burden of proof and expense of chemical safety should rest with the chemical manufacturer, and should be evaluated by federal experts within the EPA, CDC and other agencies with relevant expertise. Today, the burden instead rests on EPA to demonstrate significant danger before the agency may demand testing or regulate chemicals in commerce. The testing should be conducted by scientists who are independent from the manufacturers, and responsible to EPA. The Green Building Council does not have, and should not be expected to have, the expertise necessary to evaluate chemical safety.

### ■ Safety Standards

Some chemicals are inherently dangerous, yet they are bound in such a way as to prevent human exposure. Even if a hazardous chemical is not released into the indoor environment and human exposure is unlikely, the source products should not be allowed if the ultimate fate of the chemical, once discarded, will be harmful to the environment.

A clear environmental safety standard should be adopted to prevent further development and sale of persistent and bioaccumulating compounds. Currently, the Green Building Council is certifying products with little understanding of the chemical content, persistence, human exposure, the potential to harm human health or ultimate environmental fate.

### ■ Chemical Classification System

The government should categorize building products to identify: a) those that contain hazardous compounds; b) those that have been tested and found to be safe; and c) those that have been insufficiently tested, making a determination of hazard or safety impossible. This database should be freely available on the internet.

### ■ Product Content Disclosure

The chemical contents of building materials and their country of origin should be identifiable on labels.