

Global, Green Building Programs' Key Differences Explored in AQS White Paper

Air Quality Sciences released a white paper covering 10 key building rating systems used throughout the world. The paper titled "Building Rating Systems (Certification Programs): A Comparison of Key Programs," takes a look at how key green building programs adopted by various countries differ from one another, explains what guidelines they have for indoor air quality and includes helpful summaries of each program.

The white paper summarizes and discusses the following green building programs and certifications. The common thread is that all 10 programs include some language around controlling IAQ.

- The BRE Environmental Assessment Method (BREEAM) – launched in the UK
- The Collaborative for High Performance Schools (CHPS) – United States
- Comprehensive Assessment System for Building Environmental Efficiency (CASBEE) – Japan
- Germany Sustainable Building Certificate (DGNB) – Germany
- Green Building Evaluation Standard (also called the Three Star System) – China
- Green Globes System – Canada
- Green Star – Australia
- Hong Kong Building Environmental Assessment Method (HK-BEAM) – Hong Kong
- Leadership in Energy and Environmental Design (LEED) – United States
- National Green Building Standard – United States

In the paper, Air Quality Sciences also takes a look at what human health and well-being standards are included in each building program (e.g., whether or not the programs required building clearance levels, if they included stipulations for product emissions, etc.). See the chart below for more information.

Comparison of Key Building Programs for Health and Wellness Aspects

Program	Third-party assessment required for certification?	Does program include allowable building clearance levels?	Does program include provisions for allowable product emissions?	What products are covered?
The BRE Environmental Assessment Method (BREEAM)	✓		✓	Wood products and any flooring; suspended ceiling tiles; flooring adhesives; wall coverings; adhesive for hanging flexible wall coverings; decorative paints and varnishes
Comprehensive Assessment System for Building Environmental Efficiency (CASBEE)	Usually a self-assessment tool, but can be used as a labeling system if a third-party verifies the assessment	✓	✓ (formaldehyde only)	
German Sustainable Building Certificate	✓	✓		
Green Building Evaluation Standard (Three Star System)	✓	✓		
Green Globes	✓	✓	✓	Adhesives, sealants, including architectural, substrates and specialty applications and interior paints
Green Star	✓		✓	Flooring, furnishings, paints and adhesives. Criteria differ for each rating tool but generally points are awarded where the product application meets 95 percent of the TVOC content or emissions limits as specified in the rating tools. In some cases, points are awarded for using low-VOC carpets with the US Carpet and Rug Institute Green Label, low-VOC adhesives and sealants and low-VOC furnishings. Points are also awarded for products that meet GREENGUARD Children & Schools SM VOC emission criteria for flooring, furniture, mattresses and wall products.

Comparison of Key Building Programs for Health and Wellness Aspects (cont'd)

Program	Third-party assessment required for certification?	Does program include allowable building clearance levels?	Does program include provisions for allowable product emissions?	What products are covered?
Hong Kong Building Environmental Assessment Method (HK-BEAM)	✓		✓	Wood products and any flooring; suspended ceiling tiles; flooring adhesives; wall coverings; adhesive for hanging flexible wall coverings; decorative paints and varnishes
Leadership in Environment and Energy Design (LEED)	✓	✓	✓	Adhesives and sealants (VOC content); paints and coatings (VOC content); flooring systems; composite wood and agrifiber products (formaldehyde only); furniture and furnishings; ceilings and wall systems (schools only)
National Green Building Standard	✓		✓	Wood materials, carpets, hard surface flooring, wall coverings, architectural coatings, adhesives and sealants, cabinets and insulation.
The Collaborative for High Performance Schools (CHPS)	✓ (self-assessment also available)		✓	Adhesives and sealants, paints and coatings, flooring systems, composite wood and agrifiber products, furniture and furnishings, and ceilings and wall systems

The full report, "Green Building Rating Systems (Certification Programs): A Comparison," is available free of charge from the Aerias-AQS Indoor Air Quality Resource Center at www.aerias.org under "Premium Content," then "White Papers." Direct link: http://www.aerias.org/uploads/2009.12.09_Green_Building_Programs_Comparison_PUBLISHED.pdf

About AQS

Air Quality Sciences, Inc. is a fully integrated indoor air quality (IAQ) company that provides solutions to create healthy indoor environments and avoid dangerous indoor pollution. As the only indoor air quality firm with laboratories that are ISO 9001 registered and ISO 17025 accredited, AQS sets the standard for accurate diagnoses and reliable solutions. Air Quality Sciences provides building studies, product emissions testing, litigation support and third party certification services for products and buildings. To learn more about AQS, visit www.aqs.com or for more information on indoor air quality, visit Aerias, the AQS IAQ Resource Center at www.aerias.org.