

IAQA 11TH ANNUAL MEETING & EXPOSITION

June 12-14, 2008 • Tampa Convention Center • Tampa, Florida



Special Challenges for Green Building Maintenance and Operations

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Leadership in Energy and Environmental Design (LEED) (USGBC)

- Certification of Buildings
 - New Construction
 - Core & Shell
 - Schools, Healthcare, Retail
- Existing Buildings-Operations and Maintenance



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The LEED for Existing Buildings Rating System

- helps building owners and operators measure operations, improvements and maintenance on a consistent scale
- goal of maximizing operational efficiency
- while minimizing environmental impacts



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LEED for Existing Buildings addresses

- whole-building cleaning and maintenance issues (including chemical use)
- recycling programs
- exterior maintenance programs,
- and systems upgrades



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- It can be applied both to existing buildings seeking LEED certification for the first time and to projects previously certified under LEED for New Construction, Schools, or Core & Shell.
- Beginning July 1, 2008, all projects registering for LEED for Existing Buildings must do so under the LEED for Existing Buildings: Operations & Maintenance version



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Prerequisites & Credits

- Must meet all Prerequisites & earn at least 34 points
 - Certified 34-42 points
 - Silver 43-50 points
 - Gold 51-67 points
 - Platinum 68-92 points
- IEQ 19 Possible Points (~60%)



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Indoor Environmental Quality

- EQ-PR: Outdoor Air Introduction & Exhaust Systems
- EQ-PR: ETS Control
- EQ-PR: Green Cleaning Policy
- EQ Credit: IAQ Best Management Practices
- EQ Credit: Occupant Comfort
- EQ Credit: Green Cleaning



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What Distinguishes a Green Building

- Resource Usage (LOW)
- Environmental Impact (LOW)
- Performance (HIGH)
- Indoor Air Quality (HIGH)



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What Distinguishes a Green Building

- Voluntary Performance Standards for sustainable ongoing operations
- Based on actual building operating performance, not design expectations
- Data must be provided demonstrating performance
- Entire building performance must be included in measurements and calculations, tenant spaces may NOT be excluded



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Who Will Be Challenged?

- **STAKEHOLDERS**
 - Building Owners
 - Building Operators / Managers
 - Building Maintenance Staff
 - Building Occupants



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Education

- On LEED EB-OM
- How each stakeholder contributes to achieving Certification
- Building Operators on HVAC Controls
- Maintenance & Custodial Staff on Green Cleaning & Maintenance Practices
- Occupants on their role



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Outside Contractors

- Low Bid...No More
- Air-Tight Specifications
- Defined Metrics of Success



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Selected Challenges

- Renovations and Construction Build-Outs
- HVAC Operations of low occupancy areas
- Evaluating and Selecting “Green Cleaning Products”



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The Role of an Indoor Environmental Professional (IEP)

- Meeting ASHRAE 62.1-2007 Ventilation
- ETS Control (Prohibition)
- Green Cleaning Policy (SOP)
- IAQ Best Management Practices: IAQ Management Program (I-BEAM)
- Outdoor Air Delivery Monitoring (CO₂)



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- Managing Alterations & Additions (SMACNA IAQ Guidelines for Occupied Buildings under Construction 1995)
- Surveying Occupant Comfort
- Thermal Comfort Monitoring
- Reviewing Cleaning Products to ensure they meet specified criteria
- Integrated Pest Management (IPM)



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Kermit was Right!...
It isn't easy being green.

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