

Improving Energy Performance in the Building Envelope

Wednesday, April 7, 2010

The Conference Center at Penn State Great Valley
30 East Swedesford Road, Malvern PA, 19355-1443

Schedule

- 7:30 a.m. Registration
- 8:00 a.m. Opening Remarks
- 8:15 a.m. **Delivering Energy Efficient Air and Vapor Barrier Systems**
Edward J. Retzbach, Tremco Global Sealants Group
- 9:30 a.m. **Achieving Energy Efficient Roofing with Building Integrated Photovoltaics, Green Roofs, and Energy Star Design**
Bill Foley, Tremco Roofing Division
- 10:45 a.m. Break / Meet the speakers
- 11:00 a.m. **Insulated Cladding Solutions for High Performance Buildings**
J.W. Mollohan, Dryvit Systems, Inc.
- 12:15 p.m. Lunch provided
- 12:45 p.m. **Elements of Commissioning and Testing for High Performance Building Enclosures**
Vincent Paladino, CanAm Building Envelope Specialists
- 2:00 p.m. Close

Register online: <http://www.sgps.psu.edu/energyperformance>
or call 610.648.3274

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Delivering Energy Efficient Air and Vapor Barrier Systems

Edward J. Retzbach, Tremco Global Sealants Group

- Economic and Environmental Benefits of Air Barrier Systems
 - Impact of Energy Efficiency
- Functions of an Air Barrier System
 - Control Functions of a Wall
 - Why Managing Air Flow is Critical to Sustainable Design
- System Components
 - Permeable and Impermeable Systems
 - Contrast Sheet and Fluid Applied Systems
- Common Design and Construction Issues
 - Specifications
 - Design
 - Sequence of Installation
 - Verification
- Integrating Windows and Curtain-Walls into an Air Barrier System

Achieving Energy Efficient Roofing with Building Integrated Photovoltaics, Green Roofs, and Energy Star Design

Bill Foley, Tremco Roofing Division

- Building Integrated Photovoltaics (Solar)
- Green (Vegetative) Roofs
- Energy Star/Cool Roofs
- Environmental Concerns
 - Urban Heat Island & Pollution
 - Energy Infrastructure
 - Carbon Impacts
 - Interior Comfort
 - Sustainability Impacts
- Economic Benefits
 - Energy Reduction
 - Storm Water Issues
 - Renewable Energy/RECS
 - Cap and Trade
 - Waste Stream/Roof Life Cycle
 - Impacting Building Value
- Major Components and Functions
 - Energy & Sustainable Focused Roofing Solutions
- Design Considerations
 - Cost, Maintenance, Life Cycle, Legislation Impacts

Insulated Cladding Solutions for High Performance Buildings

J.W. Mollohan, Dryvit Systems, Inc.

- High Performance Building Envelopes
 - What does it mean?
- The Energy Challenge
 - Governmental Policy
 - Building Influences
- Building Envelope Performance Solutions
 - Managing Air Leakage
 - Air / Weather / Vapor Barriers
 - Testing Compliance
- Improving Insulation Value
 - Addressing Thermal Bridging
 - Placement / Thickness
 - Energy Code and Climate
- Moisture Protection
 - Insulated Claddings
 - Systems and Finishes
- Retrofit / Restoration Construction Options
 - EIFS as a Retrofit Cladding
 - Existing EIFS Restoration
- New Wall Assembly Research / Data
 - ORNL Net Facility Study
- Leadership in Energy and Environmental Design
 - Envelope Performance and LEED
 - Building Cost Factors
 - Environmental Impact
 - Life Cycle Analysis

Elements of Commissioning and Testing for High Performance Building Enclosures

Vincent Paladino, CanAm Building Envelope Specialists

- Commissioning
 - Architects
 - Contractors
 - Commissioning Agent
- Roof / Wall Intersections
- Empirical Observations
 - Stack Effect
 - Mechanical Venting
 - Wind Effect
- Inspections
 - Roof Inspector
 - Air Barrier Inspector
 - Window Inspector
 - Wall & Ceiling Inspector
 - Sealant/Waterproofing Inspector
- Testing
 - Blower Door Testing
 - Thermography
 - Full Building Testing

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Sponsored by
Pennsylvania Society of Professional Engineers
and
Penn State Great Valley

In Partnership With
American Council of Engineering Companies of PA
AIA Pennsylvania
Delaware Valley Green Building Council

Registration Details

Registration fee includes continental breakfast, lunch, session materials and certificate of attendance.

Register* online: <http://www.sgps.psu.edu/energyperformance>
or call 610.648.3274

**Discounts will be applied on the final registration screen.*

Member of partnering organizations and national affiliate:

- On or before March 22\$139
- After March 22\$159

Non-Members:

- On or before March 22\$159
- After March 22\$189

Current Penn State students\$ 89

Cancellation Policy: 100% refund for cancellation made on or before March 31. No refund for cancellation after March 31.

Questions?

Jennifer Summers

Pennsylvania Society of Professional Engineers
908 North Second Street
Harrisburg, PA 17102
717.441.6051 | jennifer@wannerassoc.com

Sharon Kauffman

Program Manager, Continuing Professional Education
The Penn State University at Great Valley
School of Graduate Professional Studies
30 East Swedesford Road, Malvern, PA 19355-1443
610.725.5339 | sharonkauffman@psu.edu



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Who will benefit?

- Architects
- Building Code Officials
- Building Owners and Managers
- Contractors
- Engineers
- Specifiers

Continuing Education Credits

- 5 PDH
- 5 AIA Sustainable Design HSW Learning Units for Architects
- AIA Learning Units qualify for Professional Engineers PDH in New York State, and may qualify for PDH in other states. Check with your state Licensing Board to confirm.