



Downtown Green Bay

Come visit our new website: newiashrae.org

What: DAY LONG TECHNICAL SEMINAR

Where: *F.K. Bemis International Center, St. Norberts College*

299 3rd Street, De Pere, WI 54115

When: *March 17th, Sign-in 7:30am, Seminars from 8:00am to 4:00pm*

- 8:00-8:45 Check in/Continental Breakfast
- 8:45-10:15 Energy Efficiency Relative to HVAC Design and Operations, Tom Durkin P.E.
- Break
- 10:25-12:00 Humidity Control with and without Reheat, Tom Durkin P.E.
- 12:00-1:00 Lunch in Hendrickson Dining Room
- 1:00-2:00 Air-to-Air Energy Recovery, Greenheck
- Break
- 2:10-3:10 Make-Up Air Ventilation, Greenheck
- Break
- 3:10-4:10 Conditioning High Percentages and 100% Outdoor Air, Greenheck

Please join us for the Day Long Technical Seminar! Register at newiashrae.org or by emailing [Drew Heeter](mailto:Drew.Heeter) by Tuesday, March 10th if you would like to take part.

50TH ANNIVERSARY

The Northeast Wisconsin ASHRAE Chapter was chartered on November 11th, 1969! Thanks again to Greenheck, Chuck Gulledge, and Rick Herman for making the celebration a success.

2019-20 SCHEDULE

Oct. 8 - UW—Green Bay STEM Building Tour

Nov. 12 - Greenheck

Dec. 10 - President’s Dinner, Juppas

Jan. 14 - Atmosair Presentation

Feb 13- VAV Lab Training - Labor Union 400, Kaukauna

Mar. 17 - Day Long Technical Seminar

April 14 - Refrigeration Tour @ Bernatello’s Pizza, Kaukauna

May 7-9—2020 Region VI CRC (Peoria, IL)

May 20 - Annual Golf Outing – Royal St. Patrick’s

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Speakers:

Thomas Durkin, P.E.; Sims-Durkin Associates; Indianapolis, IN 46220

Recognized as an innovative and creative engineer throughout the Midwest, Tom directs all mechanical and plumbing engineering for SDA. Tom's designs for buildings and systems are proven to be safe, energy-efficient and cost-effective. A nationally sought-after speaker and frequent ASHRAE author who promotes energy-smart HVAC systems, Tom is also a contributor to the U.S. Department of Energy. He designed the first "Energy Star" school HVAC system in the Midwest. In 1998, Tom presented one of his innovative systems to members of the United States Congress. Tom has either invented or pioneered the implementation of nine distinct HVAC innovations, all of which save energy and reduce pollution.

Tom's design work has won twelve (12) state, national and international awards, including two ASHRAE Technology Awards. He has written many articles for the ASHRAE Journal and other industry magazines, and his work has been featured in several others. Tom is a co-author of the HVAC Pump Handbook, the definitive text on all things hydronic.

Seminar Details

Energy Efficiency Relative to HVAC Design and Operations

Tom Durkin has spent a career in designing energy efficient HVAC systems, and along the way, his designs have won twelve state, national and international awards, all for innovative approaches that save energy. This talk will visit the lessons learned and some mistakes made that continue to shape his design philosophies.

Humidity Control with and without Reheat

Durkin's approach is that most applications do not need for designers to control humidity, rather just make sure it doesn't get out of control. Humidity control can be active or passive, but it should never be ignored. This talk will explain low cost but highly effective solutions that work in all climate zones

Air-to-Air Energy Recovery

This course discusses the benefits of air-to-air energy recovery applied to ventilation systems and energy recovery technology (devices), pros and cons of available technology, psychrometrics, payback analysis, and the latest energy standards and code mandates. An overview of typical energy recovery applications and design considerations such as frost protection, bypass, and controls is included.

Make-Up Air Ventilation

This course discusses make-up air systems used in commercial kitchens and industrial applications. Topics include heating and cooling technologies, energy reduction strategies, direct and indirect gas heating technology, controls, UL requirement for cooling in kitchens, demand-based ventilation for saving energy, processing make-up air, and building pressurization. Applications for 80/20 vs. 100% outdoor air, the benefits of direct-fired gas heat vs. other heating systems for warehouses, and codes and standards..

Conditioning High Percentages and 100% Outdoor Air

This course discusses common HVAC systems found in commercial and institutional applications and the methods used to condition high percentages of outdoor air with an overview and comparison of Single Zone Variable Air Volume (VAV), Multi-Zone Variable Air Volume (VAV) and Dedicated Outdoor Air Systems (DOAS). Significant reduction of energy use can be achieved by applying different equipment schemes. The benefits of applying total heat energy recovery, decoupling latent and sensible loads, different compressor technologies, economizer options modulating head pressure control, and high turndown furnaces are reviewed in detail. New codes and efficiency standards are also reviewed that apply to dedicated outdoors air systems.