

# Wisconsin Chapter of ASHRAE

## SEMINAR

Presented by the Research Promotion Committee

**THURSDAY, MARCH 17, 2011  
8 AM TO NOON**

**MSOE  
TODD WEHR AUDITORIUM  
1025 N. Broadway, Milwaukee WI**

**REGISTRATION 7:30 AM TO 8 AM**  
Coffee, water and juice available

### **SESSION 1A: 8AM TO 10 AM**

**Sustainable Airflow Design for Hospitals: Meeting Codes, Optimizing Safety and Achieving Conservation:** Presented by Phoenix Controls and Masters Building Solutions

This presentation is oriented to helping participants make informed design and operational decisions in the planning of their sustainable hospitals. Presentation and open discussion includes; how to establish HVAC design parameters for sustainable hospitals to achieve higher efficiency in building performance. Discussion will include ideas for reduced energy consumption, improved indoor air quality/supportive healing environments and lower operational cost. Come and learn first hand about implementing a sustainable approach to healthcare HVAC design

Highlights Include:

*New HVAC codes and energy conservation guidelines*

*FGI 2010, ASHRAE 170, ASHRAE 90.1, WI DOH Updates (if needed), other codes that apply*

*Current construction and renovation market trends*

*Operations and HVAC Facility Challenges: Impact to the Bottom Line*

*Funding, Grant & Research Monies for Sustainable Hospital Construction & Renovation*

*Exploration of Alternative Ventilation for Energy Conservation without sacrificing Patient Safety*

*Examples of Sustainable HVAC system design implementation and obtainable savings*

### **SESSION 1B: 10AM TO NOON**

**VAV SYSTEMS AND DEDICATED OUTSIDE AIR SYSTEMS:** Presented by TEC – Milwaukee and the Carrier Corporation.

Recall basis principles of the VAV system

Reasons for designing and installing a VAV system

Types of zones (heating purpose)

Describe VAV system components and their functions

Know the functions of return, exhaust, and supply fans

Describe control modes, algorithms, hardware, and settings for VAV systems

Identify necessary sensors

Know networking requirements

Identify supply air reset function

Know the control strategies for VAV reheat

Know the relationship between CO2 level and DCV

Describe both existing and emerging compression techniques for direct expansion VAV systems

Know the method for capacity modulation in a digital scroll compressor

Describe the principles of operation of a dedicated outside air unit, both with and without energy recovery.

**SESSION 2A:            8AM TO 10 AM**

**LIFE SAFETY DAMPERS:** Presented by Vyron Corporation and Greenheck Corporation.

Review Life Safety Dampers to include Fire Dampers, Combination Fire Smoke, Smoke Dampers and Ceiling Radiation dampers (UL555, UL 555S and UL555C.) We will get into the specifics of the installation requirements and what to consider when sizing dampers. We will cover UL requirements for testing and what the industry as a whole has to do to comply with UL.

**SESSION 2B:            10AM TO NOON**

**HEAT RECOVERY AND HEAT PUMP CHILLERS:** Presented by Johnson Controls, Inc.

Understanding the concepts and designing the systems to optimize the use of heat recovery & heat pump chillers.

**NOON TO 1 PM**

**Lunch and ASHRAE General Monthly Meeting**

**COST:**

**\$50.00 per person** (lunch included)

**REGISTRATION:**

[www.ashrae-wi.org](http://www.ashrae-wi.org)

Click on registration