POWUr NEWS
Saskatoon Chapter News
March 3rd ,2006

# Meeting Notice

## Tuesday March 14th, 2006

@ The Willows Golf & Country Club

Speaker: Kent Peterson - Distinguished Lecturer
Topic: Chilled Water Systems

| | |
|---|---|
| 5:30 - 6:00 | Cash Bar |
| 6:00 - 6:45 | Supper |
| 6:45 - 7:15 | Chapter Meeting |
| 7:30 - 8:30 | Dinner Speaker |

AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR-CONDITIONING ENGINEERS
ASHRAE SASKATOON

**ASHRAE**
**Saskatoon**
**P.O Box 7043**
**Saskatoon SK**
**S7K 4J1**



## AWARDS

Congratulations to :

Mr. Robert Besant & Dr. Wei Shang both from the University of Saskathcewan For receiving the 2005 Poster Presentation Award as authors of " Determining Flow Channel Size Variations Using A Pressure Probe for a Typical Regenerative Wheel"

Mr. Blake Erb a 3rd year Mechanical Engineering at the University of Saskatchewan for receiving the $ 3,000.00 ASHRAE Memorial Scholarship for the 2006-2007 academic year.

Mr. Jared Manz a fourth year Mechanical Engineering student at the University of Saskatchewan for receiving the $ 1,000.00 ASHRAE – Saskatoon Chapter Design Award.

## RESEARCH PROMOTION

If you would like to donate to this years goal, please contact Mike Osborn @ 242-3333 or m.osborn@cypresssales.com

## PROGRAM SPEAKERS

I am looking for suggestions for Meeting Speakers and Topics for our local Chapter Meetings for the 2006-2007 season. If anyone has an interesting topic, or knows someone that might be interested in Speaking at one of our Local Meetings, please contact Bruce Waldbillig @ 931-3316 or via email bwaldbillig@price-hvac.com

## STUDENT AFFAIRS

Carey Simonson from the U of S reported that Blake Erb a 3rd year Mechanical Engineering student at the university received a $3000.00 ASHRAE Undergraduate scholarship this year from Atlanta. Congratulations Blake!!
Bruce Dobbs, Regional Vice Chair for Student Affairs may be visiting the chapter April 11th.

Paul Khanna

## MEMBERSHIP NEWS

**Previous Meeting Attendance:** Many thanks to those who attended the February 2006 local chapter meeting and listen to the presentation by Jeannine Paul from Nexus Solar Corporation and her presentation on New Energy Systems for Buildings. This was a combined membership promotion and students night. Those in attendance were;

**Chapter Members**

| | | | | |
|---|---|---|---|---|
| Bill Dean | Jonathan French | Jonathan Bushman | Reg Hofmann | Jeff Frie |
| Myles Bantle | Jason Rennick | Travis Clarke | Paul Khanna | Kirk Campbell |
| Bruce Waldbillig | Reg Povey | Grant Roming | Ryan McGillivray | Mike Osborn |
| Hector Drolet | Keith Morson | Trent Washkosky | Dean Buchholz | |

**Prospective New Members**

| | | |
|---|---|---|
| Rick Savoie | Kelly Snider | Jeannine Paul |

**Student Members**

| | | | | |
|---|---|---|---|---|
| Micheal Raab | Dustin Gervais | Gary Niekamp | Jarret Dean | Fraser Tennant |
| Bob Mergel | Ryan Shepherd | John Lang | Dallon Mann | Dean Tomolak |
| Craig McCallum | Salton Willems | Colin Clarke | | |

**Rosters:** Saskatoon Chapter 2005-2006 rosters are available for pick-up at all our local chapter meetings.

**Web Site:** Check our web page for all the latest news on our local chapter.

http://www.saskatoon.ashraechapters.org

*Jeff A. Frie A.Sc.T.*

Membership Promotion Chairperson

Team,

Below is a press release that could be/ should be included in your next chapter newsletter. While sustainability is gaining momentum everywhere it is particularly strong in Region XI. The work the society is planning with the proposed standard in partnership with USGBC and IESNA will position ASHRAE at the forefront of the sustainability movement for
years to come.

This will create opportunities for our chapters to attract new members through more interaction with those involved in green projects (which could be just about everyone in construction and building management).

Bill Dean, P.Eng
ASHRAE Director & Regional Chair (XI)

**ASHRAE, USGBC, IESNA Partner on Baseline Standard for Green Building**

--New standard to drive high performance building practices to the mainstream

(Washington, DC) - The U.S. Green Building Council (USGBC); the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE); and the Illuminating Engineering Society of North America (IESNA) announced today that the three organizations have agreed to co-sponsor the development of a new ASHRAE/USGBC/IESNA minimum standard for high performance green building.

Proposed Standard 189, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings, will provide minimum requirements for the design of sustainable buildings to balance environmental responsibility, resource efficiency, occupant comfort and well-being, and community sensitivity. Using USGBC's LEED Green Building Rating System, which addresses the top 25% of building practice, as a key resource, Standard 189P will provide a baseline that will drive green building into mainstream building practices. Scheduled for completion in 2007, the proposed standard will apply to new commercial buildings and major renovation projects, addressing sustainable sites, water use efficiency, energy efficiency, a building's impact on the atmosphere, materials and resources, and indoor environmental quality. Standard 189P will be an ANSI-accredited standard that can be incorporated into building code. It is intended that the standard will eventually become a prerequisite under LEED. "This standard will establish a baseline for a high-performance, green building," ASHRAE president Lee Burgett, P.E., said. "It will allow us to provide for the needs of the present without detracting from the ability to fulfill the needs of the future. Our partnership with USGBC to develop the proposed standard draws on their extensive experience in the green building market and assures that the needs of those who create sustainable buildings are met. We also are pleased to partner again with IESNA, building on the earlier efforts of our two societies in creating design guidance for more energy efficient buildings." "We are proud to work with ASHRAE and IESNA to bring high performance green building practices to the mainstream," said Rick Fedrizzi,
President, CEO and Founding Chair, USGBC. "USGBC's mission is market transformation, and we've long recognized the need to reach beyond the market leaders served by LEED to accomplish it.

Given ASHRAE's integrity and long history of leadership in energy efficiency and indoor environment, and IESNA's technical strength in lighting, they're the ideal partners in the effort. We're confident that the baseline standard we'll develop together will raise the entirety of the commercial building marketplace to a new level of resource efficiency." Fedrizzi noted that concurrent with this initiative, USGBC will begin work on LEED v3.0, which will encompass major advancements in building science and technology, such as LifeCycle Assessment and bioregional weighting. "Sustainability is the next natural progression in the evolution of standards for building design, allowing us to weigh system solutions against the impact on the environment, while ensuring that buildings meet the needs of those who must work or live in them" said Dr. Alan Lewis, president, IESNA. "Sustainable design is a collaborative approach to architecture and construction and IESNA is pleased to be in partnership with ASHRAE and USGBC." ASHRAE's technical resources provide the engineering basis for sustainable buildings. Through the Society's Roadmap for Sustainability, ASHRAE advocates a sustainable built environment via the use of advanced technologies and develops and maintains productive relationships with other organizations in the sustainability field.

About ASHRAE
Founded in 1894, ASHRAE is an international organization of 55,000 persons. Its sole objective is to advance through research, standards writing, publishing and continuing education the arts and sciences of HVAC&R to serve the evolving needs of the public.

About USGBC
USGBC is the nation's leading nonprofit organization working to promote
buildings that are environmentally responsible, profitable and healthy places to live and work. USGBC's membership includes 6,000 corporations, federal agencies, state and local governments, and nonprofits; and encompasses 65 local chapters and affiliates nationwide.

About IESNA
IESNA is the recognized technical authority on illumination. For over 100 years, its objective has been to communicate information on all aspects of good lighting practice to its members, to the lighting community, and to consumers, through a variety of programs, publications, and services.

**KENT PETERSON**
**P2S Engineering, Inc.**
**Long Beach, CA**

Kent Peterson, P.E., has worked as a consulting engineer for over twenty years and has a reputation for providing creative design solutions. He is the Chief Mechanical Engineer and a Principal of P2S Engineering in Long Beach, California. His design experience includes a wide range of projects including industrial, educational and high-tech manufacturing facilities.

Mr. Peterson is currently serving as an ASHRAE Vice-President. He has chaired numerous ASHRAE committees and is a past member of ASHRAE TC 1.2, Instruments and Measurements, TC 1.4, Control Theory and Application and GPC 13, Guideline for Specifying Direct Digital Control Systems. Mr. Peterson has authored a number of papers and articles.

LECTURE TOPICS:

Designing Central Chilled Water Systems

Engineers have many decisions to make when designing central chilled water systems today. Many of these decisions require extensive consideration of elements beyond the perimeter of the plant. Some of these questions include:

- What diversity factors can be used in sizing chilled water systems?
- How can the design delta T be achieved?
- What effect does delta T have on chiller performance?
- What plant configuration best fits the requirements?
- What control strategies should be used?
- How do you select the proper chillers, cooling towers and pumps?
- When is thermal storage viable?

Designing Cleanroom HVAC Systems

Cleanrooms are utilized in semiconductor, biotech and other industries to control product contamination during manufacturing. HVAC systems typically require air to be filtered to an acceptable level along with precise temperature, humidity and pressurization control. This presentation focuses on the fundamentals of cleanrooms, how to design HVAC systems for cleanrooms, trends in the industry and how to overcome these challenges while still providing an energy efficient system.

The Role of Controls for Acceptable IAQ

Controls play an important role in HVAC system compliance with ASHRAE Standard 62 “Ventilation for Acceptable Indoor Air Quality”. The selection and operation of ventilation controls for recirculation systems must consider many factors to be effective in maintaining air quality. These factors include the control of temperature, humidity, source contaminants and ventilation air. This presentation reviews the role of controls in providing system compliance with Standard 62.1 including:

- Control component selection and maintenance considerations
- The role of humidity control to minimize growth of allergenic or pathogenic organisms
- Ventilation Rate Procedure control functions
- $CO_2$ control techniques

Effectively Communicating Control Strategies in the Sequence of Operations

Many HVAC&R designs today lack an adequate Sequence of Operations. System designers are tasked with designing energy-efficient functional systems to meet a given design criteria. We select equipment components and assemble them into these functional systems. It is essential to document the intended system operation and interaction in the Sequence of Operations. Many decisions require a thorough understanding of elements controlled and their effect on other system parameters. This presentation will discuss how to effectively communicate system operational parameters for others to understand and provide a logical way for engineers to approach conveying the information.

Achieving Design Quality

Design quality provides the foundation for a successful project. High quality design and construction goes beyond technology and tools, requiring a high degree of knowledge, skill and judgment during all phases of the project. It requires communication, understanding, and the ability to balance clients' wants, needs, priorities and budgets. This lecture focuses on the steps designers should take to reduce potential for error throughout the production process; conceptualizing a design; system selection; and checking assumptions, calculations and conformance to owners' criteria and to applicable laws and standards.

3/2/04

# ASHRAE Saskatoon Chapter

## General Meeting Minutes
## *February 7th, 2006*



### I. Call to order

Reg Hofmann called to order the regular meeting of the ASHRAE Saskatoon General Meeting at 7:18 p.m on February 7th, 2006 At the Willows Golf & Country Club.

### II. Reading of minutes from last meeting

- The meeting minutes from the January meeting were read by Bruce Waldbillig. Reg Povey made a motion to accept the minutes as read which was seconded by Ryan MacGillivray.
- There were no changes or omissions
- A vote to accept the minutes as read or amended was passed unanimously

### III. Reports

**Treasurer** – Ryan MacGillivray
- Account balances were noted and not published.
- U of S Scholarship was awarded to Jared Manz a 4th Year Mechanical Engineering Student
- SIAST Scholarship will be awarded in April

**Programs** - Kirk Campbell
- Welcome Janine Paul from Nexus Solar Corporation.
- Kent Peterson (Distinguished Lecturer) will be speaking in March about Chilled Water Systems
- April meeting speaker 99.9% confirmed.

**CTTC** – Chris Conley
- Not present

**Student Activities** – Paul Khanna
- 13 SIAST students are here for the meeting
- The RVC of Student Affairs will be in Saskatoon in April to meet with Paul

**History** – Jack Scott
- Local Curling funspiel will be February 18th at the Granite Curling Club starting at 2:30. Cost is $20.00 / person to curl. Supper to follow at your own expense.
- The John Ross Curling Bonspiel for the Prairies will be held in Edmonton on February 25th, if anyone is interested in participating please contact Jack Scott.

**Membership** – Jeff Frie

- Welcome to all the new prospective ASHRAE members and to all Students
- ASHRAE Rosters are available for pick-up
- Welcome new chapter members Colin Hilderman from HVAC Sales, Travis Clarke from CHB Technologies and Steve Moore from DMA Applied Controls. Steve's Membership will be transferred to the Regina Chapter.
- Invite all Students to attend the remaining meetings at a cost of only $ 5.00.
- The delinquent members will be contacted by phone to clear up their membership dues.

**Research Promotion** – Mike Osborn

- Is officially kicking off the new Research Promotion campaign
- ASHRAE coins are here to distribute to the donors from 2004-2005.
- Last years goal was approximately $ 7.000.00 and this years goal is $ 6,200.00
- Mike will shave his head if an extra $ 2,000.00 above our goal is received.

## IV. Unfinished Business from the Previous Meeting

- Looking for suggestions for new book(s) to add to our ASHRAE library, please contact Chris Conley with your requests.

- Looking for Nominations for ASHRAE Awards at the CRC.

## V. New business

- If no suggestions for new books to add to our ASHRAE library are received the BOG will decide an appropriate selection.
- Friday May 26th is booked for our ASHRAE Golf Tournament at the Willows.
- Chris Conley & Jeff Frie attended a number of seminars at the ASHARE Expo in Chicago. Daniels Wingerak Engineering Ltd. has purchased a DVD with all the seminars. They will review the information and advise if it's beneficial for our Chapter to purchase a copy for our Library.

## VI. Adjournment

- Jonathan French made a motion to adjourn the meeting. Meeting adjourned at 7:37 p.m.

Minutes submitted by: Bruce Waldbillig