

ASHRAE CHAPTER INFORMATION QUESTIONNAIRE

Complete and mail to Headquarters, ASHRAE, 1791 Tuille Circle N.E., Atlanta, Georgia, 30329, Telephone: (404) 636-8400, with a copy to your Regional Chairperson. Addresses should be the same as used for other Society mailings, including your Journal, Handbook and miscellaneous mailings. Please notify Headquarters and Regional Chairperson promptly of questionnaire changes.

CHAPTER OFFICERS must not use nicknames; must include area codes when listing phone numbers and must list member (#). CHAPTER OFFICERS MUST BE MEMBERS OF SOCIETY IN GOOD STANDING WITH THE GRADE OF ASSOCIATE MEMBER OR HIGHER.

CHAPTER: WINDSOR

141

1994 -95 SOCIETY YEAR

MEETING DATES FOR THE UPCOMING FISCAL YEAR

July - None	October 18	January 17	April 18
August - None	November 15	February 21	May 16
September 20	December 13	March 21	June - None

Regular Meeting Location: TBQ,s Other Place, Windsor, Ontario

PRESIDENT

Steve Koutsonicolas (2048489)
Lorenzen Engineering
1920 Westcott
Windsor, Ontario N8S 2W9
Lorenzen Engineering
Phone: (519) 973-2866
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Lafontaine, Cowie & Burratto
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FAX: (519) 966-5523

BOARD OF GOVERNORS

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FAX: (519) 436-5325

PRESIDENT - ELECT

Frank Frabotta (2052217)
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MEMBERSHIP

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REGIONAL CHAIR

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ASHRAE HEADQUARTERS

Debra Canady Foster
ASHRAE
1791 Tuille Circle N.E.
Atlanta, Georgia, USA 30329
Phone: 1-800-527-4723
Fax:

PRESIDENT'S MESSAGE

Welcome back to the 12th year of the Windsor ASHRAE Chapter. We hope that this year's executive will give you an exciting program as the others have been in previous years.

This year we will kick off with the 2nd annual golf tournament. Bring a fellow co-worker or client out, as this should prove to be a fun day.

Back by popular demand last year, we will be returning to the TBQ's Other Place for our monthly meetings. Watch for this in future newsletters.

We are looking for volunteers to help out the committee chairs to do their jobs easier this year. If a chairperson asks you for help please donate an hour of your time per month. This will help operate our local chapter better.

Hope everyone has a great year and see you on the golf course!

Steve Koutsonicolas
President

CRC REPORT

The 1994 Region II CRC was held in Ottawa, Ontario on August 11 - 13, 1994.

The attendees for this CRC from the Windsor Chapter were:

Delegate: Steve Koutsonicolas
Alternate: Frank Frabotta
Membership Promotion: Len Kupisz
Research Promotion: Don Winkup
Regional Vice Chair - Research: Dan Castellan
Regional Vice Chair
- Education: Tom McDonald

Some of the highlights of the conference were the various historical displays from the various

Region II Chapters. Windsor, also had a display on our chapter history. The technical tours included the Cliff Central Heating and Cooling Plant, which provides heating and cooling to all the Parliament and Government buildings and the Heating and Cooling plants of the renovated Chateau Laurier Hotel. The President's Dinner was held at the National Gallery of Canada where ASHRAE President Billy Manning gave a speech on his theme of "Building on the Shoulders of Giants".

And finally, the committee workshops were a good source of information for operating our local chapter.

Whoever has not attended a CRC, you do not know what you're missing. Next year's will be held in Toronto. Try and make it!

Steve Koutsonicolas
Delegate

MEMBERSHIP

The 1994 Second Annual ASHRAE Golf Tournament is upon us now and all chapter members are expected to come out and join in on the fun. We encourage each member to bring a guest who might be interested in joining ASHRAE. The Windsor Chapter is a well established organization with room to grow. As ASHRAE members, we should all be encouraging co-workers, clients and business associates to consider joining ASHRAE.

We are expecting Mr. Norm Johnson, Region II Regional Vice Chair of Membership to attend the Golf Tournament and to meet all members and guests.

Also, a reminder to all members that the membership fees are due. Please send in your payment to Atlanta and to the local chapter, your promptness is appreciated.

Increase Your Professional Knowledge -
Keep Abreast of Changing Technologies -

Attend ASHRAE's
Professional Development Seminars (PDS)

"Air System Design and Retrofit"
November 15-16, 1994

"Water System Design"
November 17-18, 1994

in
Montréal, PQ

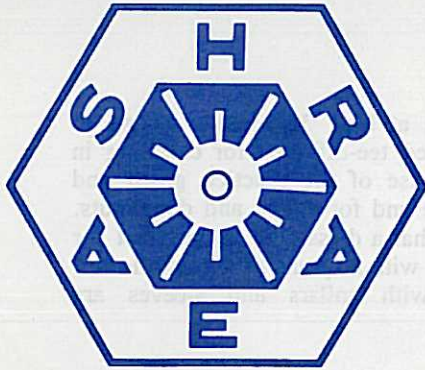
For a complete program brochure and registration
information contact Laura Tracy at ASHRAE
Headquarters (404) 636-8400, Fax (404) 321-5478

Increase Your Professional Knowledge -
Keep Abreast of Changing Technologies -

Attend ASHRAE and SFPE's
Professional Development Seminar (PDS)

"Design of
Smoke Management Systems"
November 10-11, 1994
Toronto, ON

For a complete program brochure and registration
information contact the Registrar at SFPE
Headquarters (617) 482-0686, Fax (617) 482-8184



ASHRAE...IN WINDSOR!

*Windsor Ontario Chapter
American Society of Heating, Refrigerating and
Air Conditioning Engineers Inc.*

VOLUME 12

SEPTEMBER, 1994

NO. 1

MEMBERSHIP DAY

Tuesday, September 20, 1994

GOLF TOURNAMENT

at

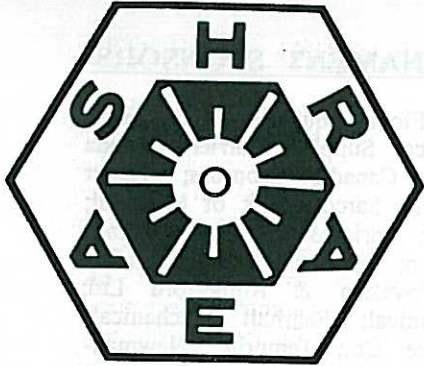
SUTTON CREEK GOLF & COUNTRY CLUB

Gesto Road at Walker, R.R. #2, Essex, Ontario

Registration Table Open:	9:00 a.m.
Tee Off Times:	10:00 a.m. - 12:00 p.m.
Dinner:	6:00 p.m. (Cash Bar)
Prize Presentations:	7:00 p.m.
Program:	7:30 p.m.

* Members or Guests must call James Smith at 948-2600 by
September 16, 1994 for reservations.

Program Speaker: Mr. Bill McIntosh
Topic: Construction and Engineering in the Windsor Area



ASHRAE...IN WINDSOR!

*Windsor Ontario Chapter
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Air Conditioning Engineers Inc.*

VOLUME 11

OCTOBER, 1994

NO. 2

HISTORIAN NIGHT

Tuesday, October 18, 1994

A TOUR OF HISTORICAL



HIRAM WALKER & SONS LIMITED

DISTILLERS OF

Canadian Club

- TOPIC:** "A Little Bit of Windsor History" - Tour of the Hiram Walker Facility on their H.V.A.C. Systems in a Distillery Facility
- SPEAKER:** Mr. Dick St. Pierre
Product Services/Engineering/Fire Protection
- TOUR GUIDES:** Mr. Art John's
Mr. Paul Schentag
- LOCATION:** Riverside Drive and Walker Road across the street from Gate No. 5
- TOUR BEGINS:** 4:45 PM
- DINNER:** 7:15 PM (CASH BAR)
TBQ's "Other Place", 3065 Dougall Avenue
Members: \$20.00/Guests: \$25.00

- Members or Guests must call James Smith at (519) 948-2600 by October 14, 1994 for Reservations

ASHRAE CENTENNIAL CELEBRATION

ASHRAE Commemorates Sites of Its Founding

New York City - The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) celebrated the centennial anniversary of its founding September 10 by dedicating a commemorative plaque at the site of the original meeting. The plaque which marks the exact time, date and location of the first meeting - 3:00 PM, September 10, 1894 at the Broadway Central Hotel - was placed on the New York University law school dormitory, where the hotel once stood at the corner of Broadway and East 3rd Street.

The ceremony was followed by a historical roundtable held at Old Merchant's House on 4th Street. Participants discussed the early days of the heating and ventilating industry, the ways in which some of the early technological breakthroughs contributed to the evolution of New York's skyline, and ASHRAE's role in the development of this technology.

Top Society executives saluted ASHRAE's many accomplishments and contributions to the growth of the heating, refrigerating and air-conditioning technology in speeches made at the plaque dedication ceremony. Some of these include: ventilation rates, ammonia table, standard tonnage of refrigeration, comfort chart, safety code for mechanical refrigeration and code for minimum requirements for comfort air-conditioning.

The plaque was unveiled by Milton W. Garland, a 99 year old practicing engineering consultant and active ASHRAE member. "The founders of this Society had great foresight and vision," he said. "Today, we salute them and all our members for the past 100 years by dedicating this plaque."

"This afternoon's unveiling will stand as a testament to the strength and dedication of ASHRAE's founders and pioneers of the heating, refrigerating and air-conditioning industry," said Bill R. Manning, P.E., ASHRAE president.

Since its founding 100 years ago, ASHRAE has grown into an international organization of 50,000 persons in 156 chapters and more than 100 nations. Its objective is to advance through research, standards writing and continuing education the arts and sciences of heating, ventilation, air conditioning and refrigeration for the public's benefit.

NOTES:

- A copy of the Windsor ASHRAE Membership Roster is available free of charge, contact any board member for your copy.
- Next Board of Governors meeting - October 24, 1994, 5:15 PM at Baymar Supply Ltd.
- If you attend a Professional Development Seminar or other education event notify Thomas McDonald. We receive PAOE points for each event you attend.
- Anyone who would like a nametag, please call James Smith at 948-2600 -cost is \$5.00.
- **DID YOU HEAR?** Frank Frabotta has finally popped the question to long-time girlfriend - Maria. No date has been set.

FUTURE MEETINGS

November 15, 1994:

Refrigeration Night (York)/Membership Drive

December 13, 1994:

Social Night (Windsor Raceway)

January 17, 1995:

TEGA Night

February 21, 1995:

Research Night/Construction Law

March 21, 1995:

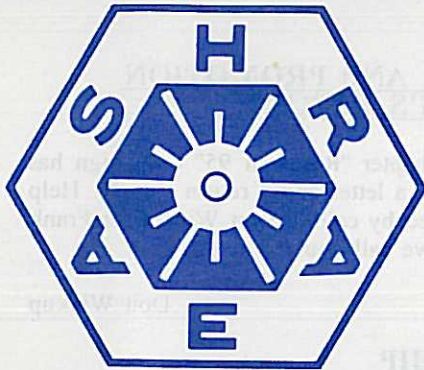
Presidents Night

April 18, 1995:

Education/Student/Chatham

May 16, 1994:

Election Night



ASHRAE...IN WINDSOR!

*Windsor Ontario Chapter
American Society of Heating, Refrigerating and
Air Conditioning Engineers Inc.*

VOLUME 12

NOVEMBER, 1994

NO. 3

REFRIGERATION NIGHT/MEMBERSHIP DRIVE

Tuesday, November 15, 1994

by



at

tbq's OTHER PLACE
3065 Dougall Avenue
Windsor, Ontario

Fellowship:	5:30 am
Dinner:	6:15 pm (Cash Bar)
Speaker:	7:30 pm

(Members \$20, Students \$20, Guests \$25)

SPEAKER: Mr. Trevor Frith, P. Eng.
National Sales Manager - York Applied Systems

TOPIC:

- **CFC Update** Including Containment, Conversion, Retrofit and Replacement
- The Responsibility of Owners and Service Personnel Under Ontario Refrigerants Regulation #189/94
- Latest Updates to the Mechanical Refrigeration Code CSA-B52

For Dinner Reservations
Contact James Smith at 948-2600 by November 11, 1994

ASHRAE SETS TECHNICAL PROGRAM FOR CENTENNIAL MEETING

ASHRAE has selected the technical program for its Centennial meeting, January 28 - February 1, 1995 in Chicago, Illinois.

The technical program presents many historical sessions examining the growth of HVAC & R technology, such as building design, and numerous state-of-the-art advances, such as fuzzy logic controls, making this program the largest in the Society's history.

The historical sessions will explore the development of various technologies, including building energy calculations; the transition from district heating to district energy; fire and smoke control; the evolution of window technology; comfort research; HVAC piping and pumping; and highlights of HVAC & R history from Europe, Australia and the United States.

Among the sessions concerned with energy use are demand-side management in the energy-efficient operation of buildings, thermal energy storage, new approaches to computer-based energy design tools, successful cogeneration systems and energy conservation in industrial facilities.

The technical program also addresses a variety of topics, such as smoke management systems, variable speed motors, practical applications of PC-based operation and maintenance management, case studies on laboratory design, cryogenics, advances in fenestration, power quality in HVAC applications, and the Clean Air Act.

Two sessions will explore the development of ASHRAE standards; one on expectations for BACnet™, ASHRAE's proposed standard on building automation control, and the other on the development of revised Standard 90.1 on energy conservation for new buildings.

In all, ASHRAE's 1995 Winter meeting technical program will feature 138 papers presented in 4 technical sessions and one poster session, 24 symposia featuring 91 papers, 51 seminars and 35 forums. With its 115 total sessions, the 1995 winter technical program is the largest in the Society's 100 year history.

The Society will celebrate its Centennial at this meeting. Registration for the ASHRAE meeting is \$275.00 (\$215 ASHRAE member fee). To register, contact ASHRAE Customer Service 1-800-5-ASHRAE (U.S. and Canada).

The 1995 International Air Conditioning, Heating, Refrigerating Exposition, co-sponsored by ASHRAE and the Air Conditioning and Refrigeration Institute, will take place during the Society's Winter Meeting,

January 30 - February 1, at McCormick Place in Chicago. For more information on attending the Exposition, contact International Exposition Company, 15 Franklin Street, Westport, CT 06880, Telephone 203-221-9232, Fax 203-221-9260.

NOTES:

- A copy of the 1994-1995 Windsor ASHRAE Membership Roster will be available free of charge in January, 1995, contact any board member for your copy.
- Next Board of Governors meeting - November 22, 1994, 5:15 PM at Baymar Supply Ltd.
- If you attend a Professional Development Seminar or other education event notify Thomas McDonald. We receive PAOE points for each event you attend.
- Anyone who would like a nametag, please call James Smith at 948-2600 -cost is \$5.00.

FUTURE MEETINGS

December 14, 1994:
Social Night (Windsor Raceway)

January 17, 1995:
TEGA Night

February 21, 1995:
Research Night/Construction Law/Joint Meeting with local O.A.A. Chapter

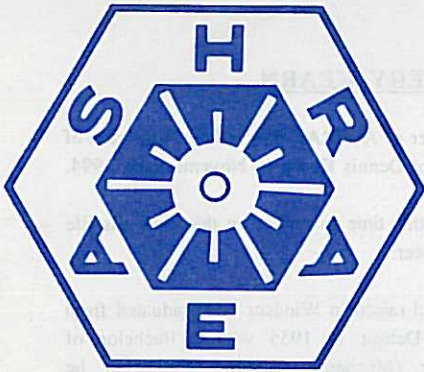
March 21, 1995:
Presidents Night

April 18, 1995:
Education/Student/Chatham

May 16, 1994:
Election Night

NEWSLETTER

If you would like to have an announcement or article published in a future chapter newsletter, send it by fax to Steve Koutsonicolas at 974-2102.



ASHRAE...IN WINDSOR!

*Windsor Ontario Chapter
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Air Conditioning Engineers Inc.*

VOLUME 12

DECEMBER, 1994

NO. 4

LADIES NIGHT

Wednesday, December 14, 1994

at

WINDSOR RACEWAY

Arrival:	6:15 pm
Dinner:	6:30 pm (Cash Bar)
Post Time:	7:30 pm

(Members and Guests \$21.00)

Including Dinner, Taxes, Tip, Racing Program and Entry to the Canadian Club

Choice of Dinners

Prime Rib
Breast of Chicken
Broiled Pickerel

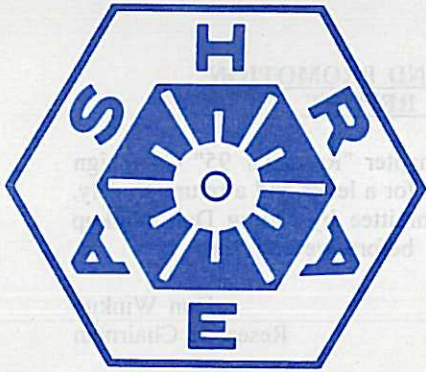
Excellent Seating!

For Dinner Tickets and Reservations for Tables of 4 and 6

Contact Frank Pelisek 974-5800 by December 12, 1994

RESERVATIONS ARE LIMITED

**HALES, CHPT
WILSON, DALO & ASSOCIATES
3200 DEZIEL DR. SUITE 308
WINDSOR, ONTARIO
N8W 5K8**



ASHRAE...IN WINDSOR!

Windsor Ontario Chapter

*American Society of Heating, Refrigerating and
Air Conditioning Engineers Inc.*

VOLUME 12

JANUARY, 1995

NO. 5

TEGA NIGHT
Tuesday, January 17, 1995

on

**ENERGY EFFICIENT AND ENVIRONMENTALLY
RESPONSIBLE BUILDING TECHNOLOGY**

at

tbq's OTHER PLACE
3065 Dougall Avenue
Windsor, Ontario

Fellowship: 5:30 am
Dinner: 6:15 pm (Cash Bar)
Speaker: 7:30 pm

(Members \$20, Students \$20, Guests \$25)

SPEAKER: Mr. John Kokko, P. Eng., Enermodal Engineering of Waterloo

TOPIC: The presentation will discuss lessons learned and preliminary monitoring results from the Waterloo Regional Green Home, one of the most energy efficient and environmentally responsible houses in the world. The design for the Green of the Grand Office Building will also be presented which uses one half the energy to a comparable ASHRAE 90.1 building and will also address other environmental concerns.

For Dinner Reservations
Contact James Smith at 948-2600 by January 13, 1995

ENGINEERING SHOWCASE

On November 10, 1994, ASHRAE Windsor Chapter sponsored the Essex County PEO Chapter Engineering Showcase and had a display booth promoting ASHRAE and all of its resources in Membership, Education, Standards and Research. The booth presentation consisted of the ASHRAE video of Improving the Quality of Life, the display of technical standards, Handbooks, journals, pamphlets and the ASHRAE Professional Development Seminar on DDC Controls for HVAC Monitoring. Booth attendees (see picture below, from left to right) were James Smith Membership Chairman, Frank Frabotta President Elect and Mark Benedet Refrigeration Chairman.

NOTES:

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- Next Board of Governors meeting - January 24, 1995, 5:15 PM at Baymar Supply Ltd.
- If you attend a Professional Development Seminar or other education event notify Thomas McDonald. We receive PAOE points for each event you attend.
- Anyone who would like a nametag, please call James Smith at 948-2600 -cost is \$5.00.

FUTURE MEETINGS

February 21, 1995:

Research Night/Construction Law/joint meeting

March 21, 1995:

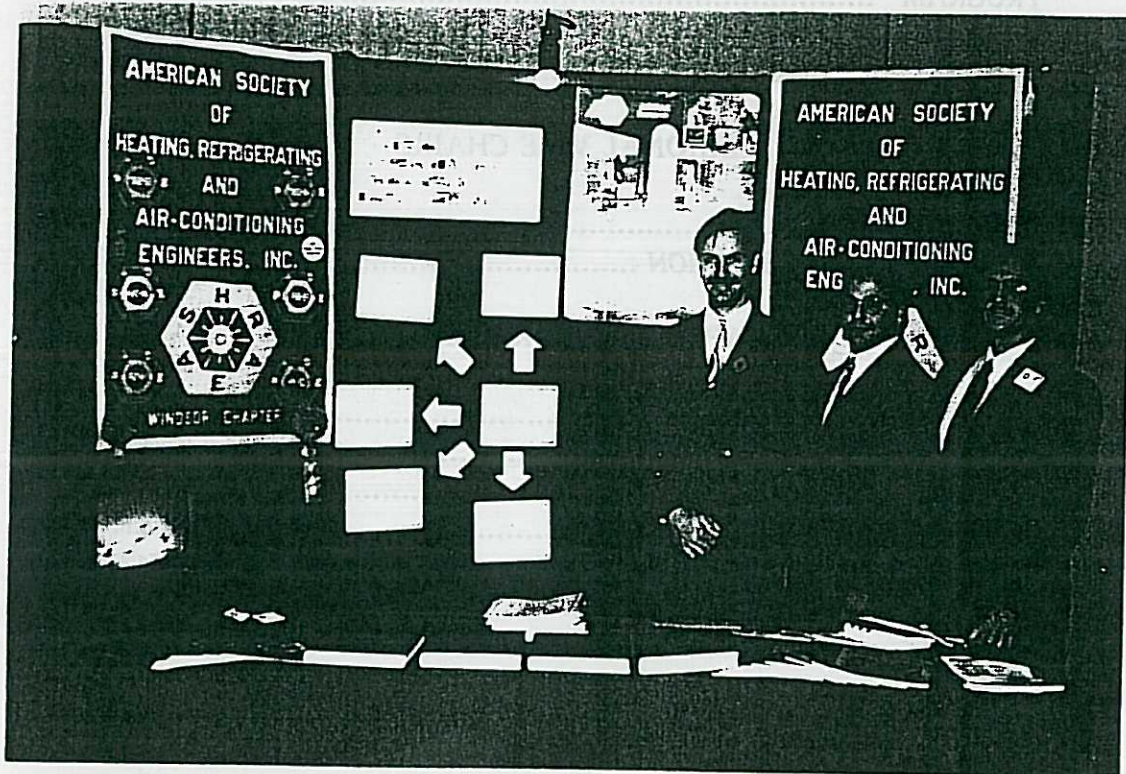
Presidents Night/technical topic

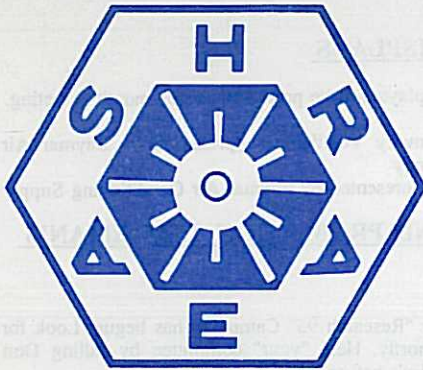
April 18, 1995:

Education/Student/Chatham/technical topic

May 16, 1994:

Election Night/technical topic





ASHRAE...IN WINDSOR!

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Air Conditioning Engineers Inc.*

VOLUME 12

FEBRUARY, 1995

NO. 6

RESEARCH NIGHT/JOINT MEETING WITH ST. CLAIR REGION SOCIETY OF ARCHITECTS

Tuesday, February 21, 1995

on

CONSTRUCTION LAW

at

tbq's OTHER PLACE
3065 Dougall Avenue
Windsor, Ontario

Fellowship:	5:30 am
Dinner:	6:15 pm (Cash Bar)
Speaker:	7:30 pm

(ASHRAE & SCRSA Members \$20, Students \$20, Guests \$25)

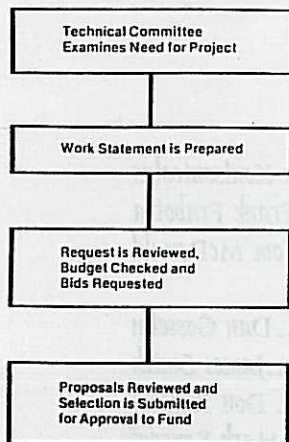
SPEAKER: Mr. James A. LeBer, Partner, Lerner & Associates Barristers & Solicitors

TOPIC: Construction Law

**For Dinner Reservations
Contact James Smith at 948-2600 by February 17, 1995**



How Is ASHRAE Research Organized?



Who Conducts ASHRAE Research?

During the past decade, ASHRAE Research Canada has sponsored several hundred thousands of dollars worth of research activities and grants-in-aid to students at Canadian institutions in the areas of heating, ventilation, air conditioning and refrigeration. Represented among these institutions are:

Concordia University, Montreal
 McMaster University, Hamilton
 University of Alberta, Edmonton
 University of British Columbia, Vancouver
 University of Manitoba, Winnipeg
 University of New Brunswick, Fredericton
 University of Saskatchewan, Saskatoon
 University of Western Ontario, London
 University of Windsor, Windsor

ASHRAE Publications:

Solar energy utilization, energy conservation, geothermal energy development, the effect of fire and smoke in high-rise buildings, control of organic contaminants in indoor air - these are all areas in which ASHRAE Research has contributed to the state of the art. The Society's publications serve as the connecting link which makes these contributions possible.

ASHRAE Transactions

All technical session and symposium papers and discussions presented at the Society's annual and semiannual meetings are compiled in *ASHRAE Transactions*. Many of these papers are direct reports of the results of various research projects, and they serve as the basis for many of the revisions in the *ASHRAE Handbook* series.

ASHRAE Handbook

For more than 50 years, *ASHRAE Handbook* and its predecessor publications have been accepted internationally as the most authoritative source of technical information in the HVAC&R field. This four-volume series - Applications, Fundamentals, Systems and Equipment - comprises a complete reference of current data and fundamental information. Each year a different volume is revised so that the entire series is constantly updated. Invaluable to engineers, these volumes are also welcomed by teachers, students, educational institutions and libraries as engineering textbooks.

ASHRAE Journal

The Society's monthly publication is recognized as the industry authority on research, design, development and engineering news. Editorial theme issues provide in-depth coverage of timely topics.

While the results of ASHRAE Research have traditionally been disseminated through technical papers presented at Society meetings, a series of "Research Notes" has been instituted in the *ASHRAE Journal*. These notes make research more understandable and easily available to the general membership through use of eye-catching graphics and reference to published reports.

Who Benefits from ASHRAE Research?

- ASHRAE members advance themselves in the profession through the use of improved technical information from research incorporated in ASHRAE publications.
- Consulting engineers depend on ASHRAE's publication of advances in technology, resulting from research, to keep themselves and their staffs up-to-date on the current best practice.
- Design engineers depend upon ASHRAE publications for the most advanced and most broadly accepted technical information to supplement their formal education and experience.
- Manufacturers of equipment, controls or any of the mechanical components associated with HVAC&R rely on ASHRAE standards and data presented in the *Handbook* series and at the Society's technical meetings.
- Equipment sales companies benefit from advances in equipment design and application which are often a direct result of technical information developed, verified or updated and published by the Society.
- Mechanical contractors benefit from technical advances which increase the demand for more and better mechanical equipment and systems.
- Energy suppliers (electric, gas and oil) enjoy increased sales as a direct result of advances in product and system design which creates greater demand for HVAC&R.
- The general public benefits through improvements in food preservation and in more effective and efficient systems to maintain health and comfort.

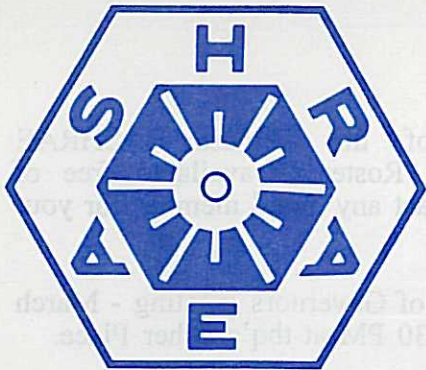
In Short Everyone Benefits!

Everyone who uses the *ASHRAE Handbook* series receives the results of ASHRAE Research. Much of these data stem from work initiated five, ten, fifteen, even forty years ago and more. Our predecessors supported research to develop the information we now use regularly. Can we do less for those who follow?

Our responsibility to future generations - as well as to our own well-being - requires a positive commitment to the funding of ASHRAE Research. Every individual, business and agency which benefits from ASHRAE Research should support this important work.

Why Contribute to ASHRAE Research?

ASHRAE does not ask for a financial contribution as a donation. We ask support from business as an investment in a research program which has benefited them in the past and which, with continued support, will keep this viable part of Canadian industry for the benefit of all.



ASHRAE...IN WINDSOR!

*Windsor Ontario Chapter
American Society of Heating, Refrigerating and
Air Conditioning Engineers Inc.*

VOLUME 12

MARCH, 1995

NO. 7

PRESIDENTS NIGHT & REFRIGERATION NIGHT

Tuesday, March 21, 1995

on

**CFC FREE WITH THE LEAST AMOUNT OF
CASH OUTLAY**

at

tbq's OTHER PLACE
3065 Dougall Avenue
Windsor, Ontario

Fellowship:	5:30 am
Dinner:	6:15 pm (Cash Bar)
Speaker:	7:30 pm

(ASHRAE Members \$20, Students \$20, Guests \$25)

SPEAKER: Mr. Stewart Lockhart, P. Eng.
Trane Canada, Windsor Sales Agency

TOPIC: Refrigeration - CFC Issue

For Dinner Reservations
Contact James Smith at 948-2600 by March 17, 1995

NEW REFRIGERANTS, CFC RESOLUTION

ASHRAE approved a new energy conservation standard for existing institutional, industrial and commercial buildings at its Centennial meeting held January 28 - February 1, 1995 in Chicago, Ill.

"ASHRAE/IESNA Standard 100-95, Energy Conservation in Existing Buildings, will be the single resource for anyone involved in retrofitting a building," said ASHRAE President Billy R. Manning, P.E. "When Standard 100 is applied to their buildings, building owners or operators can be assured of receiving a comprehensive evaluation of energy conserving measures, which will result in at least a minimum level of energy savings."

Standard 100-95 seeks to upgrade the thermal performance of the building envelope, increase of the energy efficiency of systems and provide procedures and programs essential to energy conserving operation. The standard applies to existing buildings and addresses the envelope, HVAC systems, service water heating, energy distribution and lighting, he said. The new standard will replace the separate ASHRAE 100 series standards addressing those buildings and is subject to a 30-day appeal period.

The ASHRAE Board of Directors approved a new resolution supporting the timely phaseout of HCFCs (hydrochlorofluorocarbons) and HFCs (hydrofluorocarbons) refrigerants in a manner that does not interrupt the operation and service of existing equipment and systems, Manning said.

The resolution recommends that:

1. Conservation measures to minimize emissions of all refrigerants be used in accordance with ASHRAE Guideline 3 on reducing emissions from equipment and systems.
2. In order not to discourage the use of viable HCFC alternatives to CFCs (chlorofluorocarbons), the current phaseout schedules and the Montreal Protocol should not be accelerated or changed.
3. In order not to discourage the use of viable HFC alternatives, the adoption of resolutions, declarations or protocols limiting the use of HFCs as refrigerants is premature.

The resolution will be presented during international negotiations scheduled in 1995 on the Montreal Protocol.

Also, the Society approved the safety classifications and designations of six new zeotropic refrigerants while three other refrigerants were approved for public review.

"ASHRAE's safety procedures for the different refrigerants assure the safety of building occupants in case of major refrigerant leakage. When used in accordance with ASHRAE standards, any of the new refrigerants now on the market are safe," said Manning.

At this meeting, ASHRAE announced a third public review of some areas of the proposed BACnet™ standard, a protocol for building automation systems. The comment period will end by May 1, 1995, and expectations are that a BACnet™ standard will be approved by year end, he said. The proposed standard defines data communication services and protocol for computer equipment used for monitoring and control of HVAC&R building systems, and it could be used for other building systems.

"Acceptance of this standard is already so widespread that, although it is not yet approved, BACnet™ is being used in industry by a consortium of 12 control manufacturers organized by the U.S. National Institute of Standards and Technology. On March 3, 1995, testing of the manufacturers' equipment using the BACnet™ will begin," said Manning.

Also at the ASHRAE meeting, the Society reported progress in the development of international standards on building design, including hosting the first full meeting of the International Organization for Standardization (ISO) Technical Committee 205, Building Environment Design. Representatives from five countries developed a work plan and procedures on how to accomplish the development of international standards on energy conservation, indoor air quality and thermal comfort.

"In order to achieve the greatest benefit from ASHRAE's standards, there must be greater teamwork among all the persons involved in a building's design, construction and operation. This ideal is best expressed as total building design," said Manning.

The total building design approach was uniformly accepted during a forum at the ASHRAE meeting. Attendees agreed that a knowledgeable owner who was fully committed to total building design was crucial to its success. Also, sharing information during the design process is vital and should be accomplished in a team integrated approach. ASHRAE announced at the meeting that it will host a Total Building Design Conference in Chicago in October 1994, Manning said.



ASHRAE...IN WINDSOR!

Windsor Ontario Chapter
American Society of Heating, Refrigerating and
Air Conditioning Engineers Inc.

VOLUME 12

APRIL, 1995

NO. 8

EDUCATION NIGHT

Tuesday, April 18, 1995

on

TOUR OF THE DAWN OPERATIONS CENTRE UNION GAS LIMITED

at

Dawn Operations Centre
3332 Bentpath Line
R.R. 2 Tupperville

Car Pool: 5:30 pm (Union Gas Headquarters Chatham)
Tour: 6:15 pm (at Dawn)
Dinner: After Tour

(ASHRAE Members \$20, Students \$15, Guests \$25)

SPEAKER: Mr. Will Lapp
Union Gas Limited

TOPIC: Tour of Dawn Operations Centre

For Dinner Reservations
Contact James Smith at 948-2600 by April 13, 1995

Heat & Cold: Mastering the Great Indoors

In text and hundreds of illustrations, this chronological review of the HVAC&R history emphasizes the technical and scientific developments that substantially affected the HVAC&R industry and changed forever the way people live within their indoor environment. Learn about innovations such as the sophisticated "steam cockles" designed by Dr. Boswell Reid; the 1854 ice machine invented by John Gorrie; and Willis Carrier's packaged centrifugal chiller, first shown to engineers in 1922. This is just a sampling of the stories of humor, personal struggle and accomplishments; a small segment of the places, inventions and innovations you'll find in the pages of *Heat & Cold: Mastering the Great Indoors*. This hard cover edition with both color and black and white photographs contains more than 300 pages.

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CANADA'S NATIONAL ENERGY CODE FOR BUILDINGS

The following information is abridged from a report provided by Dale D. Kerr, M.Eng., P. Eng., Principal of Kerr Associates Technology Transfer and General Manager of Gerald R. Genge Building Consultants Inc. of Pepperlaw, Ontario

Building owners can look forward to reduced energy costs and a more comfortable indoor environment as the requirements in the new National Energy Code for Buildings (NECB) are implemented. Also, by constructing buildings that are more energy-efficient and implementing energy monitoring capabilities within the buildings, valuable non-renewable resources will be saved and emissions of CO₂ and other pollutants will be reduced.

The second draft of the National Energy Code for Buildings is expected to be published in March, with the final version to be published late this year. When adopted by the provinces, the code will become law and all new buildings in Canada must then meet or exceed minimum standards that will provide a cost-effective degree of energy efficiency. The National Energy Code for Buildings will apply to all new buildings and building additions larger than 10m² (100 ft²), except Part 9 buildings of residential occupancy (i.e., buildings that are three storeys or less in height and having a building area not exceeding 600m² or approximately 6450 ft²). A separate code, the National Energy Code for Houses (NECH), applies to such buildings. The NECB has far more detail on lighting, mechanical systems and electrical power consumption than the NECH, but less detail on airtightness requirements for the building envelope.

Development of the Code

The NECB was developed by the volunteer members of the Standing Committee on Energy Conservation in Buildings, who collectively have expertise in all major aspects of building construction and energy efficiency in Canada. The committee has been working on the code since 1990. The NECB is intended to be used in conjunction with the National Building Code and to complement Provincial Energy Efficiency Acts.

The first draft of the NECB was subjected to a round of public review and comment in 1994. The Standing Committee reviewed over 800 comments, and in March

the second draft of the NECB incorporating many of the suggested changes will be available from the Canadian Codes Centre for further public review and comment (see address at end of article).

There are five technical sections in the NECB: Building Envelope; Lighting; Heating, Ventilating and Air-Conditioning; Service Water Heating; and Electric Power. For the most part, the requirements in each of these sections have been determined through life-cycle costing analyses so that they make economic sense. That is, the requirements should not cost more to implement than they would save in energy costs. Many of the factors that affect life-cycle cost, such as construction costs, energy cost and climate, vary across the country. Therefore, life-cycle cost analyses were completed for 34 different regions across Canada and the requirements are customized for each region.

Code Compliance

While there are some mandatory requirements in the NECB that must always be met, the code was designed to allow for maximum design flexibility, by providing three different Compliance Paths: the Prescriptive Path, the Prescriptive Path with Trade-Offs, or the Performance Path.

The structure of the NECB is similar to ASHRAE 90.1, "Energy-Efficient Design of New Buildings Except New Low-Rise Residential Building". Changes were made to reflect Canadian requirements, such as the need for code language, references to other codes, standards, manuals and handbooks commonly followed in Canada, and the use of SI units.

Public Review

The second draft of the National Energy Code for Buildings will be available for public review and comment in March 1995. All members of the public are encouraged to review the Code and provide comments to the Standing Committee, as it is expected that the Code will become law within two to three years in most provinces. Interested readers are invited to contact the Canadian Codes Centre, Institute for Research in Construction, National Research Council Canada, Building M-24, Montreal Road, Ottawa, Ontario, K1A 0R6, Fax (613) 952-4040, to request a copy.



ASHRAE...IN WINDSOR!

*Windsor Ontario Chapter
American Society of Heating, Refrigerating and
Air Conditioning Engineers Inc.*

VOLUME 12

MAY, 1995

NO. 9

EDUCATION AND ELECTION NIGHT

Tuesday, May 16, 1995

on

INDOOR AIR QUALITY AND A STUDENT PRESENTATION

at

tbq's OTHER PLACE

**3065 Dougall Avenue
Windsor, Ontario**

Fellowship:	5:30 am (Cash Bar)
Dinner:	6:15 pm
Student Presentation:	7:30 pm
Speaker:	8:00 pm

(ASHRAE Members \$20, Guests \$25)

STUDENT PRESENTORS: Mr. Allan Parks and Mr. Randy Wolin

TOPIC: Counterflow Heat Exchanger for Domestic Dryers

SPEAKER: Mr. Gord Cooke
Air Solutions Inc.

TOPIC: Indoor Air Quality

**For Dinner Reservations
Contact James Smith at 948-2600 by May 15, 1995**

**CITY OF WINDSOR BUILDING DEPARTMENT
INITIATES IMPLEMENTATION OF ASHRAE
90.1 STANDARD**

The following is a report from the Building Commissioner Mr. Ed Link to the Chief Administrative Officer regarding: Required Energy Efficiency of Buildings.

Aim:

To recommend the establishment of a policy for the review of buildings in the City of Windsor to ensure they are constructed to new provincial standards regarding energy efficiency.

Background:

The most recent amendments to the Ontario Building Code, O. Reg 160.93 introduced a new requirement under Article 2.1.1.11 for the Energy Efficiency of Buildings. This regulation became effective as of October 1, 1993. This Article states

2.1.1.11. Energy Efficiency. Except for buildings of residential occupancy within the scope of Part 9, farm buildings and areas of buildings intended primarily for manufacturing or commercial or industrial processing, the energy efficiency of all buildings shall be designed to good engineering practice such as described in ASHRAE/IES 90.1-1989, "Energy Efficient Design of New Buildings Except Lowrise Residential buildings" and the "Guidelines for the Interpretation of ASHRAE/IES 90.1-1989" issued by the Ontario Buildings Branch of the Ministry of Housing.

Thus, the Ontario Building Code requires that new buildings, with some exceptions, as noted above are to be designed for energy efficiency. The Code specifies ASHRAE/IES 90.1-1989, "Energy Efficient Design of New Buildings Except Low Rise Residential" as acceptable good engineering practice. This standard sets minimum requirements for the energy efficient design of new buildings so that they may be constructed, operated and maintained in a manner that minimizes the use of energy in buildings through the effective application of existing technology without reducing building performance or occupant comfort. Designs of buildings are now required to design buildings to meet this Standard. At the same time, municipalities should develop policies to set out what information will be required prior to the release of permits.

Comments

Realizing the differing needs and levels of expertise of municipal Building Departments across Ontario, the Ministry of Housing has developed guidelines (modified from ASHRAE guidelines) that municipalities may follow to verify compliance. Each municipality would then establish the level of scrutiny to which each building would be subjected and the method of review. There are three levels of compliance. These

may vary from the simplest being Level I which requires the submission of a single form declaring compliance with the standard to the most complex level (Level III) which requires the submission of numerous forms declaring compliance with all the building systems. The latter may include computer modelling of systems prior to and after the construction.

The Building Department is recommending a moderate level of compliance policy, recognizing the need to protect the public and the level of expertise within the Building Department. The Building Department has streamlined its procedures and did not wish to complicate the process, thus hindering local designers or buildings from receiving building permits in a timely fashion. The recommended policy should ensure our community has proper energy efficient buildings.

The Policy that the Building Department is recommending is summarized in the proposed policy City of Windsor Building Department - Compliance Review Policy for ASHRAE/IES 90.1"

The Building Department held three seminars regarding the Permit and Inspection Process for the public, local contractors and designers, at which time this subject was discussed. This Policy was not questioned by those in attendance. This report is prepared in consultation with the St. Clair Region Society of Architects, the Consulting Engineers and the local chapter of ASHRAE.

Conclusions:

The municipality is required to enforce the provisions of the Ontario Building Code. In order to reduce the exposure to risk, the municipality should establish clear policies. The intent of this report is to establish a policy for the enforcement of the energy conservation/energy efficiency provisions recently enacted by the Ministry of Housing.

The level of service proposed mirrors what other municipalities of comparable size provide and in fact our requirements for verification are somewhat less onerous. The Department is in the process of hiring a mechanical engineer to review the information submitted, examine plans and assist in training inspectors.

Recommendations:

- I. That Council endorse the policy, attached hereto, related to the review of permit applications for compliance with ASHRAE/IES 90.1.
- II. That the Building Commissioner be directed to distribute copies of this policy to architects, engineers and other designers providing services to resident of the City of Windsor.

If you have any comments, contact Mr. Steve Koutsonicolas.