

A reminder that Decemberfest was once Ladies Night.

RECENT REPORTS:

- "CHIMNEY FAULT DETECTOR", Report No. 85-177-K.
- "STATE-OF-THE-ART COMBUSTION AND UTILIZATION EFFICIENCIES OF RESIDENTIAL FURNACES AND WATER HEATERS", Report No. 85-84K.
- "LABORATORY EVALUATION OF A RESIDENTIALLY-SIZED GROUND SOURCE HEAT PUMP", Report No. 86-227K.

All the above reports are available from Ontario Hydro Research Division, 800 Kipling Avenue, Toronto. (231-4111 - Editorial)

YOUR 1986/87 BOARD OF GOVERNORS

| | |
|-----------------|-----------------|
| Bob Bach | Past President |
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| Bill Bingham | Member |
| John Hodge | Member |
| Tom Tamblyn | Member |
| Ron Anderson | Member |

MEETING DATES 1986 - 87

| | |
|------------|--|
| December 1 | Decemberfest Speaker: Claudette MacKay - Lassonde President of the APEO |
| January 5 | Comparison of the Candu and Chernobyl Reactors Speaker: To be Announced |
| February 2 | "R" In ASHRAE Seminar |
| March 2 | Technical Session HVAC in the Queen's Quay Terminal Building Speaker: Lorne Mitchell |
| May 4 | Inauguration of the 1987-88 Toronto Chapter Executive |

LISTED BELOW ARE YOUR 1986/87 SEASON COMMITTEE CHAIRMEN

| | | |
|-----------------------|------------------|----------------|
| Energy Management | Dean Jordan | 231-9377 |
| Finance | Mike Premovic | 245-1100 |
| Research Promotion | Herb Maybank | 271-1362 |
| Special Events | Randy Chew | 291-9648 |
| Membership | Joe English | 851-3981 |
| Education | Ed Cassidy | 231-9377 |
| Technical (R & T) | Ian Patterson | 494-1575 |
| Program (Papers) | Doug Taylor | 222-2571 |
| Publicity | Frank Lenarduzzi | 231-4111 |
| Reception | Jack Field | 592-2194 |
| Honours and Awards | Bob Bach | 279-3440 |
| CRC Action | Cliff Thompson | 293-8111 |
| "R" in ASHRAE | Jim Pyper | (519) 759-3010 |
| Attendance | Jim Ovens | 479-0280 |
| Constitution & Bylaws | Howard Wheatley | 744-3300 |
| Past Presidents | | |
| Advisory | Howard Wheatley | 744-3300 |
| Roster Committee | Tom Kilmer | 231-9377 |
| Historical Committee | Herb Maybank | 271-1362 |

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ASHRAE

GAZETTE

TORONTO



Toronto Chapter — American Society of Heating, Refrigerating and Air-Conditioning Engineers

1922

SIXTY-FOURTH ANNIVERSARY YEAR

1986

VOL. 32, NO. 3

DECEMBER, 1986

TORONTO

DECEMBERFEST

Notice of Meeting

MONDAY, DECEMBER 1 1986

PARK PLAZA HOTEL - TORONTO

HOSPITALITY: 5:30 P.M.
DINNER: 6:30 P.M.

HONOURING: PAST PRESIDENTS
LIFE MEMBERS

SPECIAL GUESTS: FRED KOHLOSS
PRESIDENT, ASHRAE
AND MRS. KOHLOSS

SPEAKER: CLAUDETTE MACKAY-LASSONDE
PRESIDENT, ASSOCIATION OF
PROFESSIONAL ENGINEERS OF ONTARIO

THE BOARD OF GOVERNORS INVITES YOU TO BRING YOUR OWN SPECIAL GUEST (OR COMPANION) TO CELEBRATE DECEMBERFEST.

NON-CHAPTER MEMBERS AND GUESTS: \$25.00.

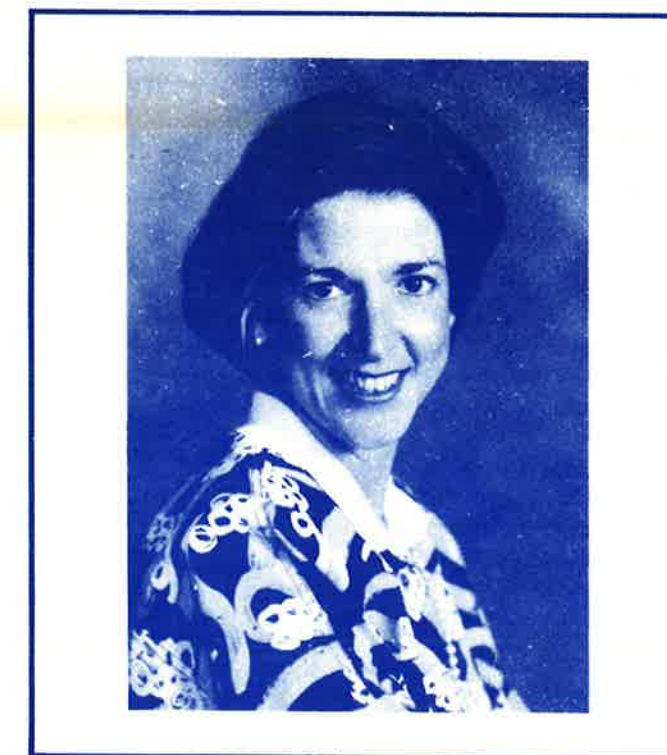
DECEMBERFEST SPEAKER

CLAUDETTE MACKAY-LASSONDE

Claudette MacKay-Lassonde will be our Decemberfest speaker this year. President of the APEO, Claudette will be speaking to us on the future directions of Canadian engineering.

She received her Chemical Engineering degree from the University of Montreal in 1971. On finding the job market a little slow, she went to the University of Utah and earned her master's degree in Nuclear Engineering in 1973. From there she went to the Bechtel Power Corporation in San Francisco and then to Atomic Energy of Canada where she worked in the area of atmospheric release calculations for radioactive materials. Claudette joined Ontario Hydro as a Nuclear Design Engineer in 1976 and has risen through the ranks to her present position, Manager of Load Forecast in Hydro's Economics and Forecasts Division.

Since stepping into the limelight of the Presidency of Canada's largest professional organization, Claudette has been in great demand as a public speaker to such diverse organizations as the Canadian Construction Association, Centennial College, the University of Waterloo and the Canadian Society for Professional Engineers. Toronto Chapter is indeed fortunate to be able to welcome Claudette on December 1st.



VIEWPOINT
AIR QUALITY

What used to be a routine Air-Conditioning problem now becomes an Air Quality issue. This is giving the HVAC industry a bad reputation and we are spending a lot of money testing for pollutants and frightening occupants.

I can appreciate that people are becoming more and more sensitive to various chemicals and particulates. But 75% of the Air Quality problems can be solved by making the HVAC System operate as best as it possibly can. Careful attention should be paid to design parameters, air distribution, air circulation at the occupant level, temperature, filter efficiency and maintenance. The HVAC engineer knows that conditions are better inside than outside buildings with a well designed HVAC System properly installed, operated and maintained. The air is heated, cooled, humidified, dehumidified, filtered and distributed to provide a good working environment which, in many cases, would not be possible without the HVAC System.

ENERGY MANAGEMENT SEMINAR
IN REVIEW

"NEW TRENDS IN ENERGY EFFICIENT EQUIPMENT"

The seminar was well attended, with representative people from all phases of our industry.

DON NEWELL, Parker Electronics
Cooling Equipment Trends.

Don's presentation covered new demand oriented control systems for VAV (Variable Air Volume) heating and ventilating air-handling systems. The system is electronic, uses a 3-wire energy bus and each zone thermostat can influence decisions made by the master control unit. The system also featured flexible, expandable modes, and fan powered mixing boxes that can handle up to 4000 cfm.

DOUG CANE, Ontario Research Foundation
Heating Equipment Trends

Doug outlined studies done with high efficiency pulse combustion boilers. He indicated several possible applications of the boilers to commercial uses even though they are not manufactured in large sizes. He covered several studies done by the Ontario Research Foundation, including charts showing that the efficiency of the unit is not affected by the load factor.

Features such as small size and ease of installation, as well as very high efficiency and extended warranties, were indicated.

TOM KILMER, Indusco Sales Limited
Air Handling Equipment Trends

Tom discussed the features and applications of the following heat recovery systems.

1. Regenerator (heat wheel)
2. Recuperator - plate type
3. Heat Pipe
4. Run Around Loop

The discussion included the use of each type according to the cleanliness of the air being handled, and the proximity of the supply and exhaust ductwork.

Included also were several applications: environmental to environmental, process to environmental, and process to process.

If there are persistent complaints of Air Quality once the system is operating properly, that is the time to check for pollutants such as outgassing of materials, cleaning methods and solvents, particulates, etc. This may require a complete study of individuals' residence, workplace, medical history and diet.

Further to the above, Hypersensitivity is becoming more and more prominent. This is where an individual is very sensitive to minute amounts of chemicals, and allergies which the normal person can usually reject. We will have an outstanding speaker on this subject at our Spring ASHRAE meeting. I hope you can attend to listen to Dr. Sherry Rogers who is an Environmental Ecologist.

BILL BINGHAM

NOTE: ASHRAE Standard No. 62-81R, Ventilation for Acceptable Air Quality, is out for public review.

Tom covered financial advantages of the various systems in relation to system size.

JOHN FAICZAK, Automation Eng. Assoc.
Building Automation

John discussed the advantages and features of DDC (Direct Digital Control) building automation systems. He covered some of the problems with the older pneumatic sensing systems and indicated how the newer DDC sensors could eliminate some problems in retrofitting existing systems.

He also discussed new applications. He introduced the concept of breaking total applications into three groups in order to simplify the understanding of DDC systems.

1. Basic or local loops
2. Complete systems
3. Supervision - complete with communication

John stressed the importance of involvement of the building operators in the development of the system in order to make them understand and feel comfortable with this newer technology.

This program was presented by the Energy Management Committee.

Dean Jordan

Ontario Hydro
Chairman

Bill Bartlett

Bartlett Eng. Assoc.
Vice Chairman

Tom Lanczi

Scanada Consultants
Secretary

Jeff Weir

Rose Technology
Publicity

John Hodge

Board of Governors
Representative

Len Fox

Fibreglass Canada
Committee Member

Howard French

City of Scarborough
Committee Member

The committee wishes to thank the speakers for their excellent presentations.

ENERGY AWARD COMPETITION
WINNERS



Dean Jordan, Chairman of the Energy Management Committee, (centre) had the pleasure of presenting the Region II Award for New Construction to Tom Tambyn, (right) of Engineering Interface Limited, for his work on the Lionel Chevrier Building in Cornwall. Tom was joined by Louis Tremblay of Cordel Ltd., developers/owners of the Lionel Chevrier Building.



Dean Jordan also did the honours, presenting the Region II Award for a Retrofit Application to Paul O'Sullivan (centre) also of Engineering Interface Limited, for his work on the Toronto City Hall. Paul was joined by John Murray (left) HVAC Supervisor for the Toronto City Hall.

GUESTS AT THE NOVEMBER MEETING

| | |
|-------------------|------------------------------------|
| Gerry Fitzsimmons | Darcy Sweeney |
| Ed Komadowski | Automation Engineering Assoc. Ltd. |
| Louis Walton | Manson Insulation |
| John F. Karch | Chil-Con |
| Wayne Harvey | Nailor-Hart Industries |
| Steven Wilson | Alpha-Laval |
| Paul O'Sullivan | Engineering Interface |
| John Murray | City of Toronto |

STUDENTS
James Stewart
R. Heres
D. Leuschner
G. Koenig
J. Smoley
S. Forgerson
Bill Nott
Neil Silverman
N. Townsend

STUDENTS
Humber College
Humber College
Humber College
Humber College
Humber College
Ryerson Polytechnical Institute
Ryerson Polytechnical Institute

TABLE TOP DISPLAYS

What an opportunity! A table top display at one of our monthly meetings is a great way for a supplier to gain exposure. Just consider the audience - a select, captive group of over 100 HVAC professionals - US!

At \$100, which includes 7 minutes on the agenda, you can't find a cheaper sales call - less than \$1.00 per person.

If your company has a product or service relevant to the HVAC industry, then take advantage of this opportunity, or if you know of an external company that would be suited to our interests, tell them about it. (They don't have to be ASHRAE members)

Give Doug Taylor, Chairman of the Program Committee, a call at 222-2571, ext. 335, to make arrangements.

NEWS OF MEMBERS

MERGER ANNOUNCEMENT

The Principals of Remington and Indusco are pleased to announce a merger of their companies into a new corporate entity **REMINGTON/INDUSCO INC.** Michael Overbury, Peter Schack, and Tom Kilmer are also pleased to have Jan Gorski join them as a new shareholder in the merged organization.

The combined company will offer superior services to the engineering and contracting community for the following product lines.

DRY-O-TRON, Pool Dehumidifiers
EDPAC, Computer Room Units
ENMET, CO Detectors
EVAPCO, Cooling Towers/Evap. Coolers
MCQUAY, Air Conditioning Products
MOVINCOOL, Spot Coolers
NORTEC, Humidifiers
PICK HEATERS, Water Heating
RECUPERATOR/MCCARTHY ROBINSON, Heat Recovery
SKIL-AIRE, Horizontal Air Cooled A/C Packages

In addition, they announce a relocation to 55 JUDSON STREET, TORONTO, M8Z 1A4 CANADA, to new and larger premises from which our more than doubled area will serve our customers and markets more efficiently.

NEW TEL. NO. (416) 251-4151

"R" IN ASHRAE SEMINAR

A Seminar will be presented on February 2nd, 1987
on

"The Application of New Technology to Refrigeration"

A complete list of seminar participants and topics will be published in the January Gazette.

In the meantime please spread the word to members and non-members who are interested in refrigeration.

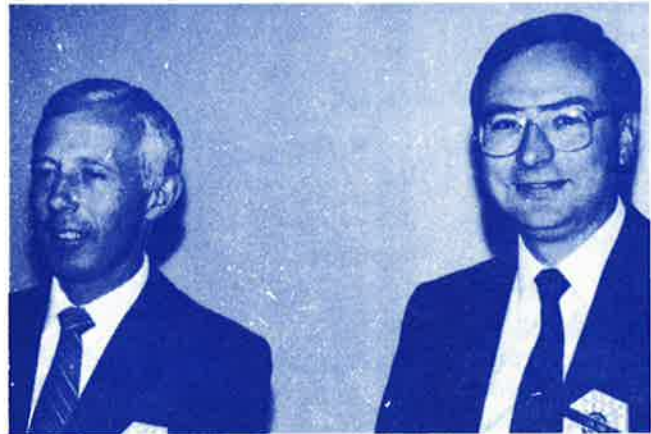
AT THE NOVEMBER MEETING



*Left: Howard French, Energy Management Committee Member.
Right: Dean Jordan, Energy Management Committee Chairman.*



*Left: Tom Tamblyn, Energy Award Winner.
Right: Bill Bartlett, Energy Management Committee Vice Chairman.*



*Left: John Hodge, Energy Management Committee Board of Governors Representative.
Right: Len Fox, Energy Management Committee Member.
Absent: Jeff Weir, Energy Management Committee Member.*



ENERGY MANAGEMENT SEMINARS SPEAKERS
*Left to Right: Doug Cane, Tom Kilmer, John Faiczak
Absent: Don Newell.*



OUR EVENING SPEAKER
Dr. Roger Higgin, Assistant Deputy Minister of Energy, for the Province of Ontario



President-Elect Jim Ovens, filling in for President Cliff Thompson



Ray Young, Region II Chairman of Membership and Member of the Ottawa Chapter of ASHRAE

DOWNTOWN ENERGY FORUM

Thursday, December 4, 1986
Metro Toronto Convention Centre
255 Front Street West, Room 205BD

The Downtown Energy forum, sponsored by the Ontario Ministry of Energy, is designed to bring together senior officials of major organizations in downtown Toronto for an exchange of information and ideas on how to save energy and dollars in their building operations.

Program

| | | | | | |
|------|-------|-------|-------|---|---------------------|
| A.M. | 8:30 | - | 9:00 | Registration and Coffee | |
| | 9:00 | - | 9:05 | Welcome, Walter Chick Senior Advisor Ministry of Energy | |
| | 9:05 | - | 9:15 | Guest speaker (to be announced) | |
| | 9:15 | - | 10:15 | Session "A" Indoor Air Quality Chairman: Gerry Granek, ECE Consultants Ltd. 1. To Smoke or Not to Smoke Karl Linton, Ministry of Government Services 2. Have You Got A Problem? John Cowan, Vice-President Rose Technology Group/Member, ASHRAE Technical Committee 3. A Review of the State of the Art Public Attitudes - Cost Benefits Gunnar Heissler, P.Eng., ECE Consultants Ltd. | |
| | 10:15 | - | 10:30 | Discussion | |
| | 10:30 | - | 10:50 | Refreshment Break | |
| | 10:50 | - | 11:00 | Message, Mel James Chairman, BOMA Energy Committee | |
| | 11:00 | - | 12:00 | Session "B" Economic Benefits of Energy Saving Systems Chairman: Doug Taylor, Ontario Hydro, BOMA Member 4. The Water Loop Heat Pump System (a) Peter Cook, Chief Mechanical Engineer Inducon Consultants (b) Douglas Crozier, Manager, Mechanical Services Development Projects Inducon Consultants 5. Electrical Load Management - Identifying the Problem Douglas Edwards, Marketing Supervisor, Ontario Hydro 6. An Overview of the Queens Quay Lake Source Heat Recovery Project Ted Alcroft, Regional Supervisor Olympia York Developments Ltd. | |
| | P.M. | 12:00 | - | 12:15 | Discussion |
| | | 12:15 | - | 1:00 | Reception and Lunch |
| 1:00 | | - | 1:10 | Message from (to be announced) | |
| 1:10 | | - | 1:25 | Presentation of Certificates | |
| 1:30 | | - | 2:30 | Demonstration of Load Measuring Equipment. Several typical portable recorders will be on display. | |
| 2:00 | | - | 3:30 | Tour of Westmetro Corporate Centre Office, Etobicoke Courtesy Inducon Development Corp. Elwood Holmes, Host | |

Registration will begin at 8:30 a.m. in the area outside the meeting room. Please call the ministry inquiries officer at 965-3246 to confirm your attendance.