



"I've been thinking about converting to gas!"

HVAC CONTRACTOR IN THE INTELLIGENT BUILDING MARKET

A SYNOPSIS ARTICLE FROM "THE AIR-CONDITIONING, HEATING AND REFRIGERATION NEWS," AUGUST 18, 1986.

HVAC contractors play an important role in the intelligent building market. It is their job to advise building owners in the design of an HVAC system that interacts with all other systems in a building; a difficult task without an engineering stronghold.

Many things have to be considered: building codes, lighting controls, and security systems are just three of the functions that have to be integrated with an HVAC system.

... In a truly intelligent building, energy management, fire and security management, and lighting control all are integrated. Future intelligent buildings "will integrate all of the building's services into multifunctional information networks . . . under a common backbone network."

The first step towards more intelligence in buildings is more intelligence in building automation systems (BAS)... While engineering a BAS, a contractor can influence what the building will be capable of in later years.

Now that the intelligent building concept is in full bloom, it is gaining support from many industries. HVAC contractors, working with building owners, are in a unique position to benefit from implementing an intelligent automation system for a building that can grow over many years.

YOUR 1986/87 BOARD OF GOVERNORS

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MEETING DATES 1986 - 87

November 3	Energy Management Seminar Evening Speaker: Hon. Vincent G. Kerrio Minister of Energy, Province of Ontario
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

Toronto ASHRAE Gazette is published monthly by the Toronto Chapter of the American Society of Heating, Refrigerating and Air-Conditioning Engineers in the interest of its members.

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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. 2

NOVEMBER, 1986

TORONTO

Notice of Meeting

MONDAY, NOVEMBER 3, 1986
PARK PLAZA HOTEL — TORONTO
HOSPITALITY: 6:00 P.M.
DINNER MEETING: 7:00 P.M.

EVENING SPEAKER



THE HONOURABLE
VINCENT G. KERRIO
MINISTER OF ENERGY
AND
MINISTER OF
NATURAL RESOURCES

FOR
THE PROVINCE OF
ONTARIO

Vincent G. Kerrio was appointed Minister, Ministry of Natural Resources and Ministry of Energy, on June 26, 1985.

He was born and raised in Niagara Falls, where he graduated from Niagara Falls Collegiate Vocational Institute and joined Kerrio Ltd., a family construction business founded by his father in 1921.

His business experience is varied and includes conducting research on vapor recovery in nuclear power plants, and travelling to Germany with an Ontario trade mission in 1972.

NEW FEES 1986/87

Plan 'A'	\$165.00 (Includes Prepaid Meals)
Plan 'B'	\$ 65.00 (Meals extra @ \$22.00 ea.)
Plan 'C'	\$ 35.00 (Toronto Chapter Past Presidents, Society Life Members, and retired members - Meals extra @ \$22.00 ea.)
Guest Meals	\$25.00

ASHRAE ENERGY MANAGEMENT SEMINAR

NEW TRENDS IN ENERGY EFFICIENT EQUIPMENT

MONDAY, NOVEMBER 3, 1986
1:30 P.M. to 5:00 P.M.
PARK PLAZA HOTEL

WITH REGULAR DINNER MEETING AFTERWARDS

ENERGY MANAGEMENT SEMINAR TOPICS

1. COOLING EQUIPMENT TRENDS —
Speaker: DON NEWELL
Parker Electronics
2. HEATING EQUIPMENT TRENDS
Speaker: DOUG CANE
Ontario Research Foundation
3. AIR HANDLING EQUIPMENT —
Speaker: TOM KILMER
Indusco Sales Ltd.
4. BUILDING AUTOMATION —
Speaker: JOHN FAICZAK
Automation Engineering Assoc.

Afternoon seminar costs:	Member	\$30.00
	Non-Member	\$35.00
	Student	\$10.00

Seminar Registrants are invited to The Evening Reception and Dinner

Please Note Regular Dinner Plan Will Apply

PRESENTATION OF THE ASHRAE ENERGY AWARDS AT THE NOVEMBER MEETING

- REGION 2 AWARD FOR NEW CONSTRUCTION
— Lionel Chevrier Building, Cornwall
— Recipient: TOM TAMBLYN
Engineering Interface Ltd.
- REGION 2 AWARD FOR RETROFIT
— Toronto City Hall, Toronto
— Recipient: PAUL O'SULLIVAN,
Engineering Interface Ltd.

Awards to be presented by Dean Jordan, Chairman of the Energy Management Committee

VIEWPOINT

"A map of the world that does not include Utopia is not worth glancing at" (says Oscar Wilde). A great dictum also as a general approach to life. It is "thinking big" with a reward guarantee in the same package. Only one thought to think.

Let's try a little Utopia, knowing that good things will happen. Utopia???

Yes Sir, most people like to contribute to their association. Unfortunately life is very competitive. But tomorrow it will certainly get better; there will be a little time then. "Tomorrow" will actually come.

Those of us who think they cannot contribute anything worthwhile will discover that they are important. Feeling important is a nice feeling.

Some of our golf guests (about 50% of the total attendance were guests, some of them very faithful guests) will discover that this is not the only worthwhile happening in our Chapter. Some will join us.

All cheques I shall receive as your treasurer will show why they were issued. Makes my job very, very simple.

Being a Chapter member is not only terrific, but also makes a lot of sense. Our Industry will spend one half of one percent of their gross on research.

Yes, fellow travellers, we have heard it in the past, we shall hear it in the future. Fortunately things are getting better. Soon winter will be here. Enjoy, enjoy. It's the only sensible choice next to disappearing into warmer climes. This you cannot do. Because all of us need you.

Dieter Heins

ASHRAE
Curling Bonspiel

FRIDAY, NOVEMBER 21, 1986

AT BAYVIEW COUNTRY CLUB

2 EIGHT END GAMES

DRAWS AT NOON AND 3:30 P.M.

CURLING: \$15.00
DINNER: \$25.00



FOR INFORMATION OR ENTRY CONTACT
RANDY CHEW AT 291-9648

(Bayview Country Club requires appropriate attire)

GUESTS AT THE OCTOBER 1986 MEETING

Peter Rowles	BEST Corporation
Philip Wild	EYR Products
Rob Samagalsky	Ryerson Student Chapter
Steven Sahl	Ryerson Student Chapter
S. Forgeron	Ryerson Student Chapter
William Nott	Ryerson Student Chapter

OCTOBER DINNER SPEAKER

Liability Insurance — Expect less coverage at Higher Costs. That was Peter Osmond's message at our October dinner meeting. Peter is the Registrar for the Association of Professional Engineers of Ontario (APEO). His talk centered on the rising costs of liability insurance for businesses, professionals and institutions. A survey of APEO members has shown premium increases between 60 and 500 percent, in 1985. In addition to the increases, the availability of insurance has declined. Some individuals cannot get insurance. Out of nine companies that used to provide liability coverage to engineers, only one still offers this service. This one company has dropped its maximum coverage from 25 million to one million, while increasing the deductibles. Thus, the true cost increases are much higher than the survey suggests, since the policy values have decreased.

What are the reasons for these extraordinary increases? Some of the factors, according to Mr. Osmond, are: the lack of a ceiling on claims, the provisions for unlimited punitive damages to cover pain and suffering, and the lack of an expiry period to limit a company's liabilities for products or services. These factors have escalated the number and dollar value of court settlements, making it difficult for insurance companies to forecast pay-out costs. Thus, to protect themselves, large world-based underwriters have stopped insuring the smaller brokers we deal with for certain high risk groups.

In Canada, statistics indicate the per capita number and size of claims are lower than in the U.S. This has not, however, helped us. The Canadian data is lumped in with the North American statistics and treated as one, by the international insurance companies. Efforts are underway to form a Canadian Insurance Exchange to alter this international perception of our country. We are seeing other more direct solutions to the problem. Many groups are pooling financial resources to provide self-insurance. Architects have recently banded together to offer indemnity insurance. Things should get better. The Slater Task Force on Insurance in Ontario has just completed a two volume report that details the problems and proposes several changes to improve the industry.

In summary, the availability of insurance has and should continue to improve and legislation is being studied both in Canada and the U.S. to limit the size of claims. However, don't hold your breath if you are expecting those premiums to drop. Mr. Osmond feels they won't for some time to come.

Frank Lenarduzzi

GUESTS AT THE OCTOBER 1986 MEETING

W. Harvey	Nailor-Hart Industries
Hal Prescott	Nailor-Hart Industries
Mark White	Dunham-Bush of Canada
Paul Campbell	Dunham-Bush of Canada
Wayne English	Borg-Warner (Canada) Limited
Joseph Tarascie	Chil-Con Products Ltd.
John Karch	Chil-Con Products Ltd.
David Pyper	Climate-Master
Robert Mosley	Raypak Thermonics (Canada) Ltd.
Alma Dudley	Ace Pump Sales & Service
Don Prior	Trane Canada Inc.
Gerry Fitzsimmons	Automation Engineering Assoc.
John Faiczak	

NOVEMBER TABLE TOP I

THE IFC FUELSAVER™.

BBC Industries Canada Ltd. has been involved with sales and distribution of the IFC FuelSaver™. for the past 18 months.

This product has been for sale in Britain and the United States since 1984 with sales from all areas now in excess of 30,000 units.

The IFC FuelSaver™. is a temperature control unit which senses the internal furnace temperatures and uses this information to calculate the optimum heat transfer range within the furnace. These calculations, based on actual facts, are then used to determine the exact instant for controlling the furnace flame.

The IFC FuelSaver™. is most effective when working with over-sized furnaces, of which there are a large number in existence.

The IFC FuelSaver™. works only on forced air furnaces.

The operation of this device is based on furnace need rather than time or limit. It automatically determines the exact instant heat is or is not needed by gathering temperature data necessary for calculating the optimum capability level of the furnace. It determines where the furnace saturation point is at all times. It then controls the flame so that the furnace will reach that saturation point and operate there and near there all through the heating cycle.

Some of The Features of the IFC FuelSaver™. are:

- automatically adjusting high and low settings
- computer controlled
- has a start delay
- prevents stack condensation
- tamperproof
- error codes

Benefits:

- increased comfort level because of more even air temperatures
- unit is portable
- less expensive than replacing your existing heating system
- there can be considerable savings
- an increasing number of satisfied customers

NOVEMBER TABLE TOP II

CANTECH CONTROLS

Since their introduction in 1971 RAYCHEM self regulating heating products have amassed an unequalled reputation with users, designers and contractors for **reliability, ease of design and ease of installation.**

These qualities are made possible by the unique semi-conductive polymer core that automatically adjusts the heat output of the cable along its entire length in response to changing ambient conditions.

While many of our customers are familiar with the unique capabilities of RAYCHEM self regulating heaters when used for the freeze protection of metal or plastic pipes, they are not aware that this technology can now be applied to snow melting of concrete or asphalt ramps and pads, gutters and downspouts, and roofs and eaves . . . regardless of material of construction! These products are now also in use for floor warming and are replacing conventional recirculating domestic hot water systems.

UPCOMING SEMINARS

- **The "Building Tomorrow" Conference**
The Ontario Ministry of Housing and the Building Industry Strategy Board are hosting a special conference directed for all the participants in building construction design, development, management, regulation, research and education. Called "Building Tomorrow", this unique joint venture involves approximately 100 private and public sector associations and agencies, and will be held from November 2nd to 6th, 1986 at the Royal York hotel in Toronto. For more information, call 585-7418.
- **AEMA First Annual Conference**
Association of Energy Management Analysts (AEMA) First Annual Conference, Delta/Chelsea Hotel Toronto, November 20-21, 1986
Topics for the first conference include energy service contracts, waste management, computerized systems, alternate vehicle fuels, swimming pools and sources of assistance for energy retrofits. Energy management products will be on display.
Conference costs are \$150 AEMA members. \$190 non-AEMA members.
For conference information contact Robert Fine, Energy Program Coordinator, 593-1441.
- **"Downtown Energy Forum"**
The Ontario Ministry of Energy will be holding its annual Energy Forum on Thursday, December 4, 1986 at the Metro Toronto Convention Centre.
For reservations and further details, contact Walter Chick at the Ministry of Energy 965-9334.

RECENT REPORTS

- **"The Effect of Thermal Envelope Upgrading in Residential Dwellings", Volume I & II**
— Sixteen dual energy houses were themally upgraded in various ways and their energy consumptions monitored for a year before and a year after the the retrofit to determine the energy consumption.
Available from the Canadian Electrical Association, Montreal - CAE No. 619-4-434.
- **"Electric Forced Warm-Air, Heating Systems Design for Energy Efficient Homes", Volume I**
— Phase I: Problem Identification
— Phase II: System Design
Prepared by Chromalox Canada and Scanada Consultants Ltd. for the Canadian Electrical Association, Montreal - CAE No. 437-4-467.

— OUR CONDOLENCES AND SYMPATHYS —

Our condolences and sympathys extend to the family and friends of **Irvin M. Bodine**, past President and Life Member of Toronto Chapter. Irvin died on Saturday, October 11 of a heart attack. He was a Past President of Keeprite Products Ltd. and Founder of Madok Manufacturing in Brantford. As a regular attendee of our Decemberfest he will be missed by many in Chapter.

AT THE OCTOBER MEETING



*Left: October Evening Speaker PETER OSMOND.
Right: From Society, Director at large, KEN WICKS.*



*LYNN DUDLEY (left) presenting the "LYNN M. DUDLEY-
RAYPACK THERMONICS CANADA" Bursary (\$1,000) to
PAUL BEDARD, former student, now with Johnson Constrols.*



*Left: MIKE McGEE, member of the Program Committee
Right: DOUG TAYLOR, Chairman of the Program
Committee.
Not pictured: JIM BAXTER, member of the Program
Committee who performed the evening speaker introductions.*



*Left: BILL BINGHAM, Board of Governors Rep. to the
Program Committee.
Right: BILL FINES, member of the Program Committee.*



*Our 1986-87 Chapter President CLIFF THOMPSON
Great 1st Meeting, CLIFF!*



*At the past presidents table, HERB MAYBANK - P.P. (left)
and special guest HAY MURRAY (right) from Southern
California.*

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS, INC.



5468 Dundas Street West, Suite 226, Islington, Ontario M9B 6E3 Telephone (416) 239-8193

TORONTO CHAPTER

YOUR FRIENDS ARE OUR FRIENDS!

WE BET - YOU HAVE FRIENDS IN OUR BUSINESS.

WE BET - SOME ARE NOT MEMBERS OF A.S.H.R.A.E.

WE BET - YOUR INFLUENCE COULD GET THEM INVOLVED.

FACT: A.S.H.R.A.E. IS THE LARGEST NON-PROFIT TECHNICAL ASSOCIATION IN THE WORLD.

FACT: A.S.H.R.A.E. IS DEDICATED TO ENHANCING PUBLIC HEALTH, SAFETY AND WELFARE.

FACT: A.S.H.R.A.E. NEEDS YOUR FRIENDS.

WE BET - YOU WILL BRING YOUR FRIENDS TO MAKE OUR SOCIETY AND CHAPTER STRONG, BECAUSE YOU ARE AN A.S.H.R.A.E. PERSON.

LET US KNOW YOUR FRIENDS, SO

WE CAN MAKE THEM OUR FRIENDS.

NEW APPLICANT:

NAME _____

ADDRESS _____

POSTAL _____

TELEPHONE _____

RETURN TO:

ASHRAE

Q/O Unilux Manufacturing Co. Inc.

140 Hanlan Road

Woodbridge, Ontario

L4L 3P6

We will forward application forms, Society and Chapter information.