

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS

**APRIL, 1987** 

# MEETING

Date:

April 21, 1987

Time:

3:30 - Tour

5:00 - Social

6:30 - 8:00 - Dinner

8:00 p.m. - Program

Place:

Phileas Fogg

Metropolitan House, 99 Bank Street

MacDonald Room

Menu:

(Buffet Style)

Beef Bourguignon with Seasoned Rice

Baked Rotini Napolitana Assorted Cold Cuts Complete Salad Selection

Rolls

Assorted Pastry Tea - Coffee

### **PROGRAM**

Speaker:

Dave Whittle

Maintenance Supervisor

Hospital Food Services ONTARIO Inc.

Topic:

Refrigeration / Food Preparation

### **TOUR PROGRAM**

Tuesday, April 21, 1987 - 3:30 p.m. National Research Council, Montreal Road Meeting Place - Building M 19

## M 20 COLD CHAMBERS

The cold chambers 5A and 7A in M-20 are used for low temperature research of sea ice and permafrost. Each chamber is designed to provide temperature control to within ± 0.10C over a temperature range of -40°C to 0°C. They are normally operated at about -100 C chamber temperature.

Temperature control (and refrigeration load control) is accomplished with compressor unloaders, hot gas bypass and electric reheat. The condensing units run continuously (24 hours a day) and the evaporator fans run continuously, with one system operating per room at any given time. The unloaders are sequenced first by means of a suction pressure controller. If discharge air temperature continues to fall below set point, the hot gas valves are modulated open to provide a false evapo-

The electric reheat is operated at all times, and power to the heaters is modulated by an SCR controller to provide fine temperature control.

### M-17 BRINE PLANT

The trichloroethylene brine plant at M-17 provides low temperature brine for cooling jet engine air intake at M-7 and also to provide cooling for a low temperature wind tunnel in M-17. Multiple condensing units provide rough capacity control for the icing tunnel, with fine temperature control of the tunnel air stream being provided through modulation of a three-way brine valve.

### PRESIDENT'S COMMENTS

At our April meeting, we will recognize the "builders" of our Chapter - our Past Presidents.

Each member of this distinguished group has, in the past, contributed a minimum of five years in directing the activities of our Chapter. Their collective efforts have benefited all members - past, present and future.

I would also encourage as many members as possible to attend our Regional Conference in Chicoutimi, Quebec, May 13, 14 and 15. A very informative program is planned that will be of particular interest to those planning to take a more active role in chapter activities.

Region conferences are an effective training ground. For complete details, talk to our Conference delegate or alternate, Simon Jol or Paul Baker.

John T. Dugan

# RECAP OF MARCH PROGRAM

Our speaker for the evening was Dr. M.S. Rae and his topic was "The NRC Lighting Research Program". He made the following key points:

- "Please turn off" switch stickers have a 4 week payback.
- Photo electric dimming controls save much less than generally predicted due to occupants closing blinds.
- Productivity of workers doing sight related work increases with a lighting level increase in a specific range.
- Adding local switches to open office areas with breaker panel control results in a 6 or 7 year payback.

# **ASHRAE CURLING BONSPIEL**

Despite the potential for disaster (Friday the 13th), this year's curling bonspiel was another success. The team of Jim Schick, George Carscallen, Gord Hayball, and Ken Beek defeated the Mastron team to win this year's cup.

Stan Millross handled the awards ceremony with incredible tact. Special awards were presented to Simon Jol and Gord Havball, Our thanks to the Rideau Curling Club, all those who donated prizes, and the organizers from the Special Events committee - Frank Jefferies, Jim Schick, Stan Millross, and Frank Tipper.

#### **NEW MEMBERS**

We WELCOME the following who have recently joined ASHRAE in our Chapter Area:

Doug Amond David Gilmour Paul Lawrence

Campeau Corporation J.L. Richards & Assoc. Ltd. Bennett & Wright Limited

Also, we welcome the many students who have become STUDENT Members of our Association. Some of the names of the more recent new student members are:

Andre Beaulieu Chantal Cloutier Russell Davids Alphonso Faalsetti Michael Hewitt **James Jarvis** Robert Kemp Eric Major

Paul Cousineau Daniel Delorme France Girouard John Hous Richard Johnson Joseph Madge Dixie Martin Paul Morin Jean-Marc Paquette John Rainville Murray Silver Cornelius Styles

David Brown

Doug McLean Nauven Nauven Zoran Polak Ian Ross

Kenneth Ugwu

William Spaulding **Guy Taylor** 

Aleksandar Vasic

if you have any questions about ASHRAE, or about our local activities, just call our Membership Chairman, Keith Murfin, at 226-3300.

# **GRADE ADVANCEMENTS**

During the last few months, a number of our Members have received approvals of their "application for advancement" in ASHRAE.

We congratulate them on their dedication to our Industry, and wish them continued success.

Although there is little differentiation between the benefits of holding any of the various 'grades' of Membership, it is nevertheless fitting that those who have grown and flourished in our Industry receive this measure of personal recognition.

**CONGRATULATIONS TO YOU!** 

# **NATIONAL IAQ CONFERENCE**

Canada's First National Conference on the health effects of indoor air quality will be held on May 29, 1987, at the Queen Elizabeth Hotel, Montreal. The cost is \$100.00. Further info may be obtained from the following representatives of the sponsor of the comference:

Mr. Les McDonald, Canadian Lung Association, Ottawa Tel. 613-237-1208:

Ms. M. Gosselin, APCA, Quebec Section, Montreal Tel. 514-376-7447.

## RESEARCH HONOUR ROLL

Every year, ASHRAE publishes a list of significant investors in the Research Program, called the Honour Roll. The Ottawa Valley Chapter had an outstanding record of research investment in 1985-86. Not only did we collect the highest amount among all the chapters in Region II, but 41 of our investors were placed on the Honour Roll.

In recognition of their contribution to the ASHRAE Research Program, the following companies and individuals will be presented with a certificate of appreciation from Society at the April Chapter meeting.

\$500 or more: Goodkey, Weedmark and Associates Jo-Ad Industries Ltd. - Ottawa Robertson & Associates

### \$125 to \$499:

Applied Insulation Co. Ltd. James Black & Associates Black & McDonald Ltd. Carmichael Engineering Ltd. Central Insulation Ltd. Clemann Large Patterson **Consulting Engineers** Comstock International Ltd. -Ottawa Crane Supply - Ottawa T.P. Crawford Ltd. Ted Digel Sales Ltd. Dilfo Mechanical Ltd. H.G. Francis & Sons D.S. Fraser & Co. Ltd. Frontier Commercial Refrigeration Ltd. Honeywell Ltd. - Ottawa Johnson Controls Ltd. - Ottawa Keeprite Products Inc. - Ottawa Landry Gauthier Lefebvre Inc. J. Landry Mechanical Sales Ltd. Lavalin J. Lunde & Associates Ltd. Mastercraft Development Corp.

Mastron Mechanical Contracting Ltd. R.J. McKee Engineering Ltd. Minto Construction Ltd. Modern Mechanical Co. Ltd. Nortec Air Conditioning Industries Ltd. Oboe Engineering Ltd. Ottawa Plumbing & Heating (1970) Ltd. J.L. Richards & Associates Ltd. J.C. Robinson & Sons Ltd. Smith & Andersen **Consulting Engineers** Triway Sheet Metal Co. Ltd. VCI Controls Inc. Frank Vaculik Walmar Agencies Division of KFRB Agency Wiles-Legault & Associates L/ Wood Banani Associates Ltd. Consulting Engineers

Congratulations to all!

# **RESEARCH PROMOTION**

The 1986-87 ASHRAE Research Promotion Campaign is now well underway. No doubt many of you have been already contacted by a member of the Chapter Research Promotion Committee, to solicit your investment in this most worthwhile endeavour.

Much has been published about the merits of the ASHRAE research program over the years, and members are very familiar with the many benefits of this effort. There are two points though, that may bear repeating. First, ASHRAE Research is the only organized program devoted exclusively to the advancement of knowledge in HVAC. Second, every dollar invested through ASHRAE Research Canada will be spent in Canada.

Feel free to discuss your views, opinions or concerns about ASHRAE research with members of the Committee:

Mike Acton, Harry Atkinson, Paul Baker, George Carscallen, Tony Chami, Ted Digel, John Dugan, Jim Gregory, Gordon Hayball, Rudolf Jetzelsperger, Simon Jol, Peter Karn, Byron ( Landry, John Lunde, Peter MacGowan, Dalton McIntyre, Allan McKinley, Bill McKinnon, Frank Tipper, Frank Vaculik, Lloyd Westgate and Ray Young.

### **UPCOMING EVENTS**

June 11 and 12 - Chateau Laurier Hotel "OPTIMUM HVAC PERFORMANCE" Presented by the Canadian Chapter of the Associated Air Balance Council. Registration Fee \$125.00 (After May 10/87 \$150.00) For details contact Chapter Director (519) 252-8051 Agenda will be posted at April meeting.

May 22 - Skyline Hotel "7th ANNUAL FORUM" Presented by Ontario Ministry of Energy **Energy Conservation - Indoor Air Quality** Load Management Measuring Equipment Opportunity to share ideas on energy conservation.

For details contact: Ministry Enquiries Officer: 416-965-3246 Operator - Zenith 80420 - Toll Free

Agenda will be posted at April meeting.

# LOCAL PROFESSIONAL DEVELOPMENT **SEMINAR - SMOKE CONTROL DESIGN**

Who Should Attend:

Air system designers, specifiers and users.

Covers basic concepts, fundamentals and specific details on stairwell and zoned smoke control. Presents fire risk assessment, effect of furnishings and sprinklers, full-scale ire tests, detection, and alarm and building codes.

## **Key Topics:**

- Smoke control theory
- Smoke removal
- Pressurization systems
- System testing
- Rate of smoke release
- Separation of smoke and heat hazards

2 days / 1.2 CEUs awarded

April 30 - May 1, 1987

Location: Chateau Laurier

Don't forget this Chapter sponsored ASHRAE Seminar at the Chateau Laurier on April 30 and May 1.

If you know of anyone, not an ASHRAE member, who may be interested in attending, please tell them about it, and give them a copy of the brochure that has been included in the last few issues of the ASHRAE Journal.

All seminars are schedule for two days.

First day:

Registration 8:00 - 8:30 a.m. Program 8:30 a.m. - 5:00 p.m.

Second day:

Program 8:30 a.m. - 4:00 p.m.

On-site registration: \$350 U.S. funds

\$485 Canadian funds

The registration fee covers all course material, refreshment breaks, and certificate of completion. Participants are responsible for their own luncheon arrangements.

SAVE \$50: A \$50 discount (\$69 Canadian funds) is offered to the second and each additional registrant from a single organization when they register for the same seminar.

#### **CRC 1987**

The ASHRAE Chapter's regional conference or CRC will be held in Chicoutimi, Quebec, this year from May 13-15. This is your opportunity to comment on society activities through the chapter representatives. Simon Jol and Paul Baker will be presenting a number of resolutions on behalf of the Ottawa chapter. Contact them with your suggestions:

Simon Jol, Delegate:

728-3571

Paul Baker, Alternate:

225-8040

STATEMENTS MADE IN THIS PUBLICATION ARE NOT EXPRESSIONS OF THE SOCIETY OR OF THE CHAPTER AND MAY NOT BE REPRODUCED WITHOUT SPECIAL PERMISSION OF THE CHAPTER.

> Editor: Jim Mahaney 560-4799 P.O. Box 2123 Station "C", Ottawa, Ontario K1Y 4J4