



NEWSLETTER

INFORMATION & NEWS FROM ASHRAE
OTTAWA VALLEY CHAPTER

FEBRUARY, 1980

P.O. Box 3123 Station "C" Ottawa, Ontario K1Y 4J4

FEBRUARY MEETING

Date: February 19, 1980

Time

Social - 5:30 p.m.

Dinner - 6:45 p.m.

Meeting - 8:15 p.m.

Place

Cathay House, 228 Albert St. (upstairs)

Topic

HEALTH AND SAFETY ASPECTS
OF NOISE AND VIBRATION

Speaker

Mr. Bob Pemberton

Manager National Capital Region
Bruel and Kjaer Canada Ltd.

Noise exposure and vibration control are important factors in providing safe acoustic environments. Noise has been designated as toxic and standards are being set for acceptable doses of all types - including impulse noise.

Mr. Pemberton will cover current measurement and control techniques. Implications of the Ontario Health and Safety Act on hearing health will also be examined.

Since graduating in mechanical and then electrical engineering, Bob has had seven years' experience with the RCA environmental test lab, one year with Communications Research Council and eight years as manager with Bruel and Kjaer, Sound and Vibration Specialists.

CURLING BONSPIEL

The ASHRAE Ottawa Valley Chapter Curling Bonspiel was held at the Rideau Curling Club on January 15, 1980, with 10 rinks participating. The winning rink over the four games consisted of Ken Frank, Kel Finch, Gil Cavill, and John McAninch.

This rink clearly outclassed the rest of the competition, and was deserving of the trophy.

The curling was followed by an excellent roast beef dinner to round out a fun afternoon and evening.



MEMBERSHIP

We welcome the following new members to the Ottawa Valley Chapter:

Donald H. Hampton
Evan O. Foulkes

FIELD TRIP

A field trip for students and chapter members through the East Block of the Parliament Buildings has been arranged for February 20, 1980.

The purpose of the trip is to learn about the changes that have occurred in the heating and air conditioning systems, and some history of the building.

Mark Clemann of Clemann, Large, Patterson and Associates whose firm designed the new systems, will discuss the systems.

Itinerary is as follows:

1. Meet at East Block at 4:30 p.m. February 20
2. Tour of East Block - approx. 45 minutes
3. Meal at West Block from 5:30 to 6:30 p.m. at a cost of \$2.75/person.
4. Welcome address by Right Honorable Walter Baker, M.P.
5. Address by Mark Clemann - approx. 35 minutes

Please note that only the first 20 chapter members can be accepted. For those interested in making this tour, call Don Hampton at 998-8176 by February 18, 1980.

TECHNICAL INFORMATION OF INTEREST

Chemical Potential Heat Storage by Drying of Zeolites

C. H. Langford
Director of Research
Contech E.T.C. Ltd.

A variety of heat storage problems associated with insulation and heat containment over a long time can be solved by converting heat into chemical potential energy. Often such conversion accomplishes storage in convenient volume and mass. (These words are a complicated way of describing fuels!) Conversion of heat to chemical potential can be accomplished at low temperature by drying of desiccant materials such as CaCl_2 hydrate or silica gel. The heat may then be released again by admitting moist air. The overall system can be called a desiccant heat battery.

Among materials which might be used the "molecular sieve zeolites" which are used as industrial drying agents are especially powerful. These materials, which are light and highly porous aluminosilicate minerals, have enthalpies of adsorption of moisture up to about 600 BTU/16. A one million BTU store weighs less than a ton and could occupy a volume of about a m^3 . At current prices for synthetic materials, the cost would be about \$400. Naturally occurring zeolites, which are somewhat less efficient, are considerably cheaper.

PRESIDENT'S MESSAGE

WHO'S WHO IN ASHRAE

It is not good enough to assume that after a building is built that an "operator" can walk in and capably take over.

The energy crisis has demanded upgraded skills in operation, as the "operator" must understand the energy implications of his systems.

In Ottawa, Public Works of Canada have commenced a program, to ensure that the operator's skills meet the new demands.

Operators come from various industrial, commercial, or institutional groups. PWC then see that further advanced technical training is provided, both in house, and at Technical Colleges. — The aim is clear — people operating buildings are required to be — "specially trained". All of the excellence achieved by research people, designers, manufacturers, and installation companies, can be implemented in a properly operated building.

The "operators" are recognized in principal as a trade, by the Ontario Department of Labour.

ASHRAE members are interested in the upgrading of our industry. Recent standard modifications have brought into ASHRAE numerous people, who share our common interest in energy, and in excellence. Many operations people are interested in, and often are, ASHRAE members.

Their contributions make our country and our industry better.

M. Acton