THE MANITOBA

Professional Engineer

ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF MANITOBA

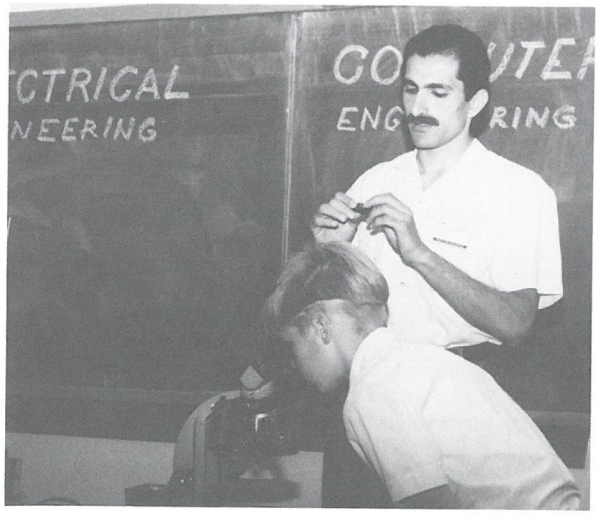
August, 1991

Meeting The Challenge: An Engineering Awareness Project

By: L. Wurtak, Science Co-ordinator, Fort Garry School Division No.5

"When I was little, I thought engineers drove trains, but now I have a better idea of the kinds of jobs engineers do. They solve problems and design things". This statement is a reflection of one child's experience from participating in the Engineering Awareness Project.

The project, a joint venture between the Fort Garry School Division and the Faculty of Engineering, was coordinated by Mr. Ray Hoemsen, P. Eng., Director of the Institute for Technological Development. The purpose of the project was to enhance both student and teacher understanding of the applications of science and the interrelationships among science, technology and society. More specifically, the project design provided male and female students and teachers with an opportunity to develop an awareness of how engineering affects their daily lives, and to view and participate in demonstrations of equipment and instruments used by engineers.



Examining a micro-chip

Forty selected elementary school students (Gr. 4, 5, 6) and eleven teachers, who comprise the Fort Garry Science Education Leadership Committee, attended the University of Manitoba Faculty of Engineering for a half-day program. The program comprised six stations, each focusing on a different engineering discipline. Participants had the opportunity to work collaboratively with an engineering professor at each station, where equipment and instruments used by engineers were demonstrated. The following is a description of the demonstrations at each station:

Station A

Location: Electrical Machines Lab

Host: Prof. G. Swift, P. Eng., Dept. of Electrical Engineering

Demonstration: A micro-chip was exposed and a magnified view of the chip displayed. A tin can motor was demonstrated to illustrate an induction motor using a rotating magnetic field.

Station B

Location: Biomedical Engineering Lab

Host: Prof. A.B. Thornton-Trump, P. Eng., Dept. of Mechanical Engineering

Demonstration:A force plate was demonstrated. The students walked across the force plate and received graphical outputs of the forces on the plate caused by their body weight during the period of contact.

Station C

Location: Geological Engineering Lab

Host: Prof. B. Stimpson, P. Eng., Dept. of Geological Engineering

Demonstration:Students volunteered to pull out load cells to compare their muscle strengths. Others used the same device to determine how much they weighed. Students then tested two rock samples, limestone and granite, for compressive strength.

Station D

Location: Engineering Materials Lab

Host: Dr. S. Rizkalla, P. Eng., Dept. of Civil Engineering

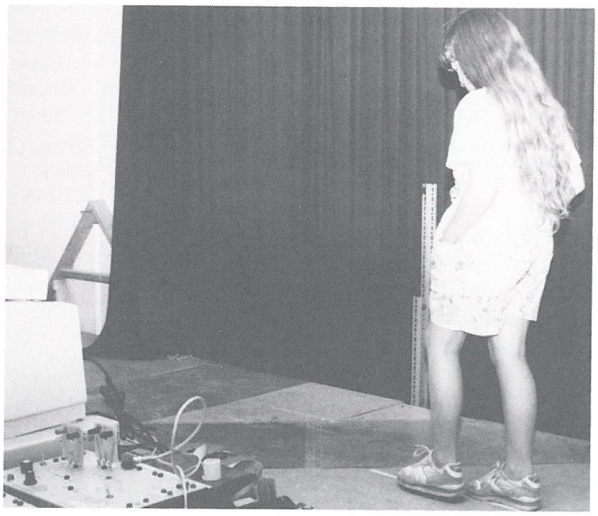
Demonstration:Fatigue testing of steel was demonstrated to show the behavior of steel in tension. The students learned that, similar to a rubber band, steel will stretch when pulled. They learned that, although it takes a tremendous force, a steel rod will stretch until it eventually breaks.

Station E

Location: Hydraulics Lab

Host: Dr. B. Lence, Dept. of Civil Engineering

Demonstration:Using an experimental channel, Dr. Lence demonstrated the supercritical and subcritical open-channel flow of water, and how the flow under these conditions is affected by the introduction of objects such as bridges in the channel.



Motion across a forceplate in the biomedical lab.

Station F

Location: Structures Lab

Host: Prof. R. Bulley, P. Eng., Dept. of Agricultural Engineering

Demonstration: A model using sand (for snow) and water (for wind) was used to show snow drift formation around buildings. The students learned that the proper orientation or siting of buildings relative to other fixed structures and the direction of the prevailing wind can minimize the effects of snow drifts.

Post-project meetings were conducted as a follow-up to the Engineering Awareness Project.

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J.W.K. Wong (Alta.)

WE HAVE LOST CONTACT. CAN WE HAVE AN ADDRESS?

G. Buttner
D.B. Davidson
E.H. Fung
D.R. Greatrix
R.A. MacPherson

R.S.V.P.

By: S.M. Matile, P. Eng.

Why is it that so many of our members routinely "turn up" at Association breakfast meetings and luncheon seminars, unannounced? And why is it that so many of the people who have advised that they will be in attendance fail to appear, and leave it up to the Association to pay for the meals that have been ordered for them?

It can't possibly be a lack of common courtesy. After all, our members are all responsible, professional people.

Perhaps it is because the organizing committee has used yet another set of those dreaded initials with which our members are not familiar. If so, please consider this to be a brief lesson in the other of this bilingual country's official languages: French.

"R.S.V.P." stands for "repondez, s'il vous plait" which, translated literally, means "reply, if you please." These initials are usually found on invitations - and on this Association's notices of meetings. The person issuing the invitation probably wants to know how many meals to order, how many places to set, how big a room will be required, how much coffee to order, etc. - so asking for a response is not an unreasonable request.

Recently, your Research and Development Committee organized a luncheon meeting featuring the Minister for Science, The Honourable William Winegard, as guest speaker. Rather than inconvenience our members by requiring them to purchase tickets in advance, we undertook a telephone registration, whereby a name tag was prepared and a luncheon ordered for each registrant. Of the 95 members registered, 17 neither attended, nor offered to pay the $10.00 which had been spent on their behalf.

Even more recently, your Professional Development Committee organized a breakfast meeting, featuring Dr. Ian Dickson of Manitoba Hydro's Environmental Affairs Department. This time, while places had been set and breakfast ordered for the 67 registrants, 80 people actually attended the meeting. It was only with significant scrambling and improvisation on the part of the staff and management at the Viscount Gort Hotel that sufficient seating and comestibles were, in fact, provided.

So please, next time you consider attending a cocktail party or an Association function, look for the initials R.S.V.P., and REPONDEZ S'IL VOUS PLAIT! □

MEMBERS DEREGISTERED JULY, 1991, FOR NON-PAYMENT OF FEES

A.M. Adams
O.R. Baker
R.J. Beyak
L.B. Birdsell
S. Block
V. Bovan
E.T. Bron
H. Brown
B.A. Cerqueira
James C.S. Chan
A. Clark
M.F.J. Clark
N.I. Faruqui
E.G. Foster
J.J.H.P. Gagne
E.H. Hanson
B.G. Hughes
G.B. Jonson
B.A. Kavanagh
P.J. Kelly
L.A. Kennedy
A.S. Khan
N.G.D. Krolman
M.C. Lai
R.D. Leclerc
F.H. Lefebvre
S.F. Liss
J.H. Lotoski
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Y. Okamura
H. Penner
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G.B.P. Plohman
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D. Richards
D.L. Sigurdson
T. Skimming
J.E. Skinner
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K.E. Warner
J.S. Williams
L.B. Winnicki
C.L. Wong
J.W. Yee
S.K. Yee
D.G. Younger-Lewis
G.J. Zukowski

RESIGNATIONS JUNE 30, 1991

J.A.E. Belagus
R.A. Bird
D.E. McCaffrey

NEW MEMBERS REGISTERED MAY & JUNE, 1991

D.D. Belsham
G.C. Cook
A. DeFrancesco
G.O.M. Evans
J.F. Green
D.G. Hayles
R.M. Inglis
T.J. Janzen
R.C.P. Kost
N.R. Krpan
D.E. Lassen
G.C. Mar
J.B. Martino
E.J. Mutterback
R.S. Neilson
D.G. Odaisky
G.A. Oucharek
G.S. Skrybalo
S.S. Urbano
T.A. Vajcner
D.M. Vanderwees
R.E. Wisniewski
D.E. Wood
R. Yogasingham

ENGINEER IN TRAINING MEMBERSHIP MAY & JUNE, 1991

S.M. Asaminew
C.J. Dudeck
D.M. Heinrichs
Q. Rashid
V.T. Tonthat
M.Z.Y. Xu

TRANSFERS OUT

L.L. Bryson
D.L. Chavez
P.R. Cunningham
D. Emerson
J.L. McLean
J.P.E.S. Ponton
A.S. Uppal

WITH DEEP REGRET THE ASSOCIATION RECORDS THE PASSING OF:

C.C. Cruikshank C.E. King

President's Message

Wm. McDonald, P. Eng.



Discipline Changes

There are two converging factors that are both contributing to an impetus for changes to the way we manage the disciplinary function in our Association.

The first and major concern of the Association is that there are restrictions in the present system that have been recognized for some time now by the Practice and Ethics Committee and staff. They encumber the work not only of this committee in serving the Association in its handling of complaints, but also of Council in the conducting of disciplinary hearings.

In order to streamline the system and address concerns regarding the effective functioning of this important aspect of the regulation of the practice of engineering, extensive changes will be proposed to the current discipline By-Law (By-Law 43) and also, eventually, minor changes to the Engineering Profession Act.

The other emerging factor is a new awareness of self-governing professions coupled with a public concern over how they manage their affairs. As a result, we are seeing most self-governing professions like Law, Medicine, Accounting and Engineering moving ahead with Codes of Ethics being redrafted, new disciplinary procedures being developed and professional development and in-service educational programs being instituted.

Times are changing and self-governing professions that do not address the public need in an open manner will soon be relieved of their responsibility.

The present Engineering Profession Act and the By-Laws of the Association fall short of the public's requirements for openness and expeditious treatment in a number of ways. The list of offences, penalties and procedures outlined in the Act {Section 24 1, Section 11 (i)} and By-Law 43 require changes, additions and clarification to streamline the discipline procedures.

The following changes are among those presently being drafted for presentation to the membership as proposed By-Law changes at the Annual General Meeting in October:

1. Provision for a two-committee system in disciplinary matters; the first being an "Investigation Committee" which would receive and investigate complaints much as is done now by the Practice and Ethics Committee, and the second being a separate "Discipline Committee" that would conduct disciplinary hearings, issue findings and, where appropriate, impose penalties.
2. Provision that disciplinary hearings be conducted by a Disciplinary Panel selected from a somewhat larger Disciplinary Committee rather than by Council, as is now the case.
3. Provision for one of the appointed Councillors (or another non-engineer) to serve on the investigation committee to provide public representation in that stage of the process.
4. Provision for a formal recorded caution and, in some circumstances, a reprimand to be issued by the Investigation Committee where appropriate.
5. Clear authority for the Investigation Committee to engage experts on either a voluntary or paid basis to assist in the investigation of a complaint.
6. Authority for the Investigation Committee to require not only the complainant, but also the member complained about, to furnish additional information and particulars at the time of an initial assessment of the complaint, in order to assess whether an investigation is warranted.
7. A requirement that a member complained against not enter into any discussion with the complainant on the issue of the complaint without the prior permission of the Investigation Committee.
8. Provision for the Investigation Committee, in consultation with the Discipline Committee, to propose a non-negotiable resolution of a complaint and, with the concurrence of the member involved, to dispose of the charge without the formality and expense of a Disciplinary Hearing.
9. Explicitly stated confirmation of the right of appeal, by the complainant, of the findings of the Investigation Committee.
10. The placing of an onus on the Investigation Committee to prepare and publish Practice Notes, based on issues identified by the Committee, as a guide to the membership in matters of proper professional conduct.
11. The requirement that hearings conducted by any panel of the Discipline Committee be open to the public. Transcripts of such hearings would not be made available to the public other than by subsequent publication of the statement of findings and penalty.
12. A requirement for the publication of the findings and/or actions of the Discipline Committee following a disciplinary hearing, including the identity of the member involved, for all members found "guilty".

These proposed changes will be forwarded to the membership in finalized wording, and with an explanation of each, for a vote at the annual meeting. If they are approved, a mail ballot will be sent to the membership for ratification.

Expansion and clarification of the categories of offences will require an amendment to the Act. It is the intention to add the offence of "conduct unbecoming a professional engineer". The present list of penalties that can be imposed would also be expanded and clarified to provide for greater flexibility. This would include such things as a requirement to undertake further education, temporary limited practice and temporary supervised practice.

Council believes that these changes will assist the Association in taking a more meaningful position in matters of discipline, a more aggressive position in protecting the public, and the more open stance that the public is demanding from self-governing professions. They have been reviewed and endorsed in principle, subject to a review of the actual wording, before the proposed By-Law change is finalized.

Also, after reviewing the recommendations, Council wishes to recognize the time and effort that has gone into the study and development of these changes by the members of the Practice and Ethics Committee.

I urge you to support the proposed By-Law changes so that our Association can be more responsive to the public need by aggressively and efficiently pursuing discipline matters. □

Manitoba Graduate Continues Studies at Princeton & becomes Aeronautics Jackson Award Winner

Brenda Lynne Belkin is the winner of the 1990 William E. Jackson Award. Selection was based on her Master's Thesis "Cooperative Rule-Based Systems for Aircraft Navigation and Control." Professor Robert F. Stengel, the School of Engineering and Applied Science, Department of Mechanical and Aerospace Engineering, Princeton University, served as Ms. Belkin's graduate research advisor.

Ms. Belkin received her B.Sc. degree in Mechanical Engineering from the University of Manitoba, Canada, in 1985, graduating with highest honours. She received the prestigious 1987 Science and Engineering Scholarship from the Natural Sciences and Engineering Research Council of Canada (NSERC) for graduate study. This scholarship is one of only sixty awarded nationwide. Subsequently, she did graduate work at Princeton University in the Department of Mechanical and Aerospace Engineering. At Princeton, she served as graduate student liaison to the Princeton University chapter of the American Institute of Aeronautics and Astronautics. Ms. Belkin received her M.S.E. degree in June of 1989. A paper from her Master's Thesis was published in the 1987 IEEE Proceedings on Decision and Control; and two other papers have been accepted for conferences this year.

Ms. Belkin joined the technical staff of AT&T Bell Laboratories in June 1989. She is currently involved in the design of systems for automated telecommunication operations.

The William E. Jackson Award consists of a $1,500 honorarium and a commemorative plaque. The award was presented during the William E. Jackson Award Luncheon, on December 5, 1990, as part of the Radio Technical Commission for Aeronautics 1990 Annual Assembly and Technical Symposium. □

1991 CCPE Annual Meeting

May 17 & 18, 1991, St. John's, Newfoundland

By: K.A. Buhr, P. Eng., Manitoba Director, CCPE

The annual meeting of the Canadian Council of Professional Engineers (CCPE) is held in a different province every year. The annual meeting in 1995 in Manitoba will coincide with the celebration of the 75th anniversary of the Manitoba Association. This year the annual meeting was held in St. John's, Newfoundland.

St. John's is the capital of Newfoundland and Labrador. The City has a long and rich history extending back some 500 years. Wandering through its streets, one can easily see why the city is promoted as a place where "the past actually lives, entwined with the present".

As the CCPE Director for Manitoba, I attended the annual meeting of CCPE in St. John's this past May. In addition to attending as Director, the meeting offered a special opportunity of being part of a ceremony to honour one of our members with a national award. At the CCPE awards dinner, I had the privilege of introducing Ted Glass, P. Eng. as the 1991 winner of the CCPE Meritorious Service Award for service to the profession. It is always a pleasure to see fellow engineers being honoured, but it is especially nice to see a member of your own Association receive an award; especially a national award.

The annual meeting was held in the Hotel Newfoundland. It began with a Board of Directors meeting on the Friday. The meeting generally consisted of the Directors receiving and approving reports of the various boards of CCPE, its committees and representatives.

I will try to highlight items from some of the reports that may require some action by our Association in the near future.

The Canadian Engineering Qualifications Board (CEQB), in addition to its report, presented for approval a "Guideline on Admission to the Practice of Engineering in Canada". Of interest to our Association will be a clause which states that "there may be exceptional instances in which applicants for registration have met the stated requirements (of academic qualification, language competency, satisfactory experience and knowledge of professional practice and ethics) in ways other than outlined in this guideline. Such applicants must clearly demonstrate long-term engineering involvement and achievements that convince the constituent Association that they have met registration requirements". Also, the guidelines recommend that "all applicants are required to have a minimum of four years of acceptable engineering experience prior to registration". This latter requirement is opposed by several of the constituent Associations. Your Council will be required to vote on the acceptance of this CCPE guideline in the near future. Approval of the guideline does not require any constituent Association to adopt all or any of its requirements. It is only a guideline for Associations to use in formulating their own admission standards. It should be recognized that if we are ever to achieve reciprocity with other provinces, the adoption of similar admission standards is necessary.

The Canadian Engineering Manpower Board has changed its name to the Canadian Engineering Human Resources Board. As well, the Board has adopted a Mission Statement and a five-year plan. The representatives of the Association of Professional Engineers, Geophysicists and Geoscientists of British Columbia raised some concerns as to the value of the data generated by the Board at a cost of approximately $100,000 annually. They indicated difficulty in rationalizing this to their members. It is interesting to note that when Manitoba raised these same issues some four to six years ago, no one else appeared concerned.

The CCPE Committee on Professional Issues tabled a guideline for "Promoting Continuing Competence of Professional Engineers", intended for approval at the November 1991 semi-annual meeting of the Board of Directors, and a guideline for the "Manual of Professional Engineering Practice in Canada" for approval at the May 1992 annual meeting of the Board of Directors.

The Executive Committee presented a Mission and Goals statement for CCPE for agreement by the Board of Directors. The Board of Directors agreed in principle with the Mission and Goals. The Board of Directors also agreed to submit comments from the Associations on the key issues and priorities for the November 1991 semi-annual meeting.

At the November 1990 semi-annual meeting of the Board of Directors, the constituent Associations were asked to support a proposal for the participation of geoscientists in CCPE affairs. The proposal was to be voted on at this annual meeting. However, the motion was defeated. It was moved, then, by APEO that "the constituent Associations that have admitted geoscientists present a proposal to CCPE that clearly states how the admission of geoscientists would enhance the interests of CCPE and the engineering profession". The motion was adopted and the issue will be addressed again at the 1991 annual meeting.

The annual meeting of the members (as distinct from the Board of Directors) of CCPE was held on Saturday, May 18, 1991. The meeting in general receives reports from the Presidents of the constituent Associations, the CCPE President and the CCPE Executive Director. As well, the meeting receives the financial reports of CCPE,

Continued on Page 12

CSCE Annual Conference

By: B.A.K. Danielson, P. Eng.
H.S. Zbigniewicz, P. Eng.

The 1991 Canadian Society for Civil Engineering (CSCE) Annual Conference and 10th Canadian Hydrotechnical Conference were held jointly in Vancouver May 29-31st, 1991. In all there were 39 technical sessions which explored a wide variety of civil engineering topics including water resources, computer applications, transportation and several areas of structural engineering.

The sessions, generally speaking, were interesting and current. Particularly impressive were the papers given by the students attending the conference. The students' papers were of the same quality as those of the practising engineers - and in some cases they surpassed them. It is reassuring to know that we can look forward to an influx of such high-calibre engineers in the future.

The opening address on May 29th was made by Mr. Keith Henry, P. Eng., Past President and Chief Executive Officer, CBA Engineering. Mr. Henry noted that Canada's infrastructure is deteriorating rapidly and must be rehabilitated soon. Since politicians will not be in favour of re-building due to the unpopularity with taxpayers, engineers will have to take on the responsibility of infrastructure rehabilitation. At the Annual General Meeting (AGM) luncheon on May 30th, Mr. Tom Sawyer, President of the American Society for Civil Engineering (ASCE), reiterated this point, then went on to express his hope that an ASCE/CSCE agreement for joint ventures, signed during the conference, would lead to better technical co-operation, friendship and professional association between the two societies.

Also at the AGM luncheon, Dr. Sami Rizkalla, P. Eng., Structural Engineering Professor at the University of Manitoba, received an award in recognition of his work as Vice-President of the Prairie region of CSCE.

Another Manitoban honoured was Mr. Robert R. Foster, P. Eng., Director and Vice-President of the Civil and Environmental Department at Wardrop Engineering, who was awarded a CSCE fellowship.

The guest speaker at the conference banquet, on the night of May 30th, was Dr. Cort MacKenzie, Professor Emeritus, University of British Columbia, who gave an interesting and witty speech (definitely appreciated after two days of technical sessions!) based on the conference theme which was "Excellence and Pride in Engineering". Dr. MacKenzie noted that, although the public and politicians tend to give credit for our quality of life mainly to the medical community, there is no doubt that many of the tools contributing to an increas standard of living can be attributed to technic advances of the engineering community, thereby demonstrating that there is excellence in engineering. Dr. MacKenzie concluded that, to keep up this standard of living, technical advances in the future will have to be continuous, brilliant, correct and unlimited. □

Communication Breakdown – The Use of Shorthand Designations

By: W.B. Mackenzie, P. Eng.

Most organizations speed up communication, both written and oral, by using abbreviations, acronyms and initializations of their own departments, divisions etc., and of other organizations with whom they may be doing business. The tendency to use these terms when communicating with others who are not familiar with the terms is widespread. And when this occurs, communications break down.

The media do it all the time – assuming that their readers, listeners or viewers are familiar with the terms they are using. Examples: IRA, IRS, VSE, TSE and so on.

Government departments are notorious for using initializations when communicating. The practice is not uncommon in technical articles.

Some of us in the Association staff are guilty of this practice. We use terms with which we are familiar, without considering that those with whom we are communicating may not be familiar with the terms.

The following is a random sampling of terms, most of which are simply initializations, which you may see in engineering publications and with which you may be familiar. But certainly people outside APEM will not be familiar with them.

OUR ASSOCIATION

APEM - Association of Professional Engineers of the Province of Manitoba.

AGM - Annual General Meeting

ARB - Admissions Review Board Committees

P.D. - Professional Development

P&E - Practice and Ethics

P.R. - Public Relations

R&D - Research and Development

P.Eng. - (no explanation necessary except to non - P.Engs.)

LOCAL ORGANIZATIONS

ACEM - Association of Consulting Engineers of Manitoba

EASIAP - Engineering and Applied Sciences Industrial Affiliates Program

MANSCETT - Manitoba Society of Certified Engineering Technicians and Technologists Inc.

M.A.A. - Manitoba Association of Architects

STAN - Science/Technology Awareness Network

OTHER PROVINCIAL ENGINEERING LICENSING BODIES (Examples):

APEO - Association of Professional Engineers of Ontario

APEGGA - Association of Professional Engineers, Geologists and Geophysicists of Alberta.

OIQ - Ordre des ingenieurs du Québec

NATIONAL ENGINEERING-RELATED ORGANIZATIONS:

CCPE: Canadian Council of Professional Engineers

Major Divisions of CCPE:

CEAB - Canadian Engineering Accreditation Board

CEMB - Canadian Engineering Manpower Board which produces the CEMI - the Canadian Engineering Manpower Inventory.

CEQB - Canadian Engineering Qualifications Board

ACEC - Association of Consulting Engineers of Canada

CCTT - Canadian Council of Technicians and Technologists

CSPE - Canadian Society for Professional Engineers

EIC - Engineering Institute of Canada

IRAP - Industrial Research Assistance Program (of the National Research Council)

NCDEAS - National Committee of Deans of Engineering and Applied Science

NSERC - National Scientific, Engineering and Research Council

RAIC - Royal Architectural Institute of Canada

INTERNATIONAL ENGINEERING-RELATED ORGANIZATIONS:

CESO - Canadian Executives Serving Overseas

CIDA - Canadian International Development Agency

CUSO - Canadian University Students Overseas

FEANI - (translated from French) - Federation of European National Engineering Associations

UNESCO - United Nations Educational, Scientific and Cultural Organization

UPADI - (translated from Spanish) - Pan American Federation of Engineering Organizations

WFEO - World Federation of Engineering Organizations.

U.S. & OTHER:

ABET - Accreditation Board for Engineering and Technology (USA)

ASHRAE - American Society of Heating, Refrigeration and Air Conditioning Engineers

C.ENG. - Chartered Engineer (British)

IEA - Institution of Engineers of Australia

IEEE - Institute of Electrical and Electronic Engineers

IEI - Institution of Engineers of Ireland

NCEES - National Council of Examiners for Engineering and Surveying (USA)

NSPE - National Society of Professional Engineers (USA)

Communication breakdown is one of the most pervasive and widespread problems we have in every activity in which we participate. It would help if we considered when and if we should use these shorthand terms in our conversations with others who may not be familiar with them. □

Bye Bye, Bill!

The Wildewood Club was the scene of the retirement reception held on June 27, 1991 for Wm.B. Mackenzie, P. Eng.

Some 40 to 50 well-wishers were on hand to roast and toast this Association's former Registrar, who officially retired from paid service to the membership the next day.

Not surprisingly, the Association staff did most of the roasting, while his friends and colleagues were somewhat more charitable.

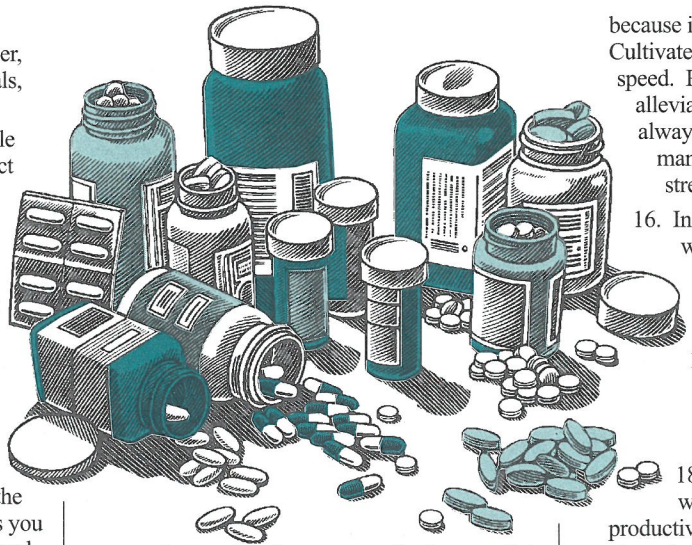
In any event, a good time was had by all, and Bill and his wife, Joyce, left the reception with, among other things, an assortment of sandwiches and cookies, a framed Scottish toast, a refund cheque for transferring into the non-practising membership category, and many good wishes for a happy and healthy retirement. □



Ray Hoemsen looks on enviously as Bill Newton and George De Pauw share retirement advice with Bill Mackenzie and Frank Fowler.

A Month's Worth of Prescriptions for Dealing With Stress

By: John H. Howard



1. Take action on nagging problems. If, for example, you are worried about lung cancer, stop smoking – one day at a time. Set goals, plan, make steady progress.
2. Realistically appraise your abilities. People often overestimate their abilities and expect too much of themselves. "Strive for your highest attainable aim, but don't put up resistance in vain."
3. Laugh a lot. Research shows that when people laugh, it's often therapeutic. Work on developing your sense of humour. Laughter heals hurts and releases tension. Learn to play "ain't it funny" rather than "ain't it awful".
4. Learn to feel comfortable talking about your problems. A close confidant is a valuable resource, but avoid dumping on the same person all the time. A ground rule is you have to be there when another needs help and support. Positive contact provides stimulation and support.
5. When stuck in traffic or waiting in line use the time to be by yourself rather than fuming over the frustration. Visualize a more peaceful, tranquil situation or process some ideas for dealing with a problem.
6. Try non-competitive play. Visit a museum or read a novel. Creativity energizes!
7. When feeling stressed, inhale deeply through your nose, hold, slowly exhale through your mouth. Repeat 5 to 10 times. Oxygen relaxes the body. Develop the art of cruising in neutral.
8. Accept the things out of your control – an overbearing boss or subordinate is unlikely to change, no matter what you do. If you can't fight and you can't flee – flow!
9. Get physical. Gardening can be as therapeutic as vigorous exercise. Strengthen and fine-tune the body for future stressful situations.
10. Take a daily music break – with eyes closed sit back and listen to 10 minutes of soothing sound. Develop the process of letting go. Get in touch with your moods.
11. Stressful events are in the eyes of the beholder and subject to the possibility of misperception. Check your perceptions and assumptions to ensure they are correct.
12. Don't procrastinate by doing low priority tasks because they're easy and fun – thereby neglecting high priorities until there is a crisis. Get control of your time and energy expenditure patterns. It's tough to use time and energy to best advantage without specific goals.
13. Deal with negative thoughts by strength. Positive thinking helps. Be an optimist. Develop the art of seeing promise in every problem. Relabel your problems (an opportunity, a challenge, a joke).
14. Avoid business lunches. Lunch time should be a psychological break, a time to balance out the morning and afternoon.
15. Avoid chronic hurriedness. High stress personalities try to do too many things, too fast. Tell yourself no enterprise ever failed because it was executed too slowly, too well. Cultivate good judgment and decision, not speed. Pacing is the art of tempo control and alleviates crisis that promotes a feeling of always being under pressure. Sloppy time management habits create their own stress.
16. Instead of an after work cocktail, try ice water followed by a 10 minute quiet time, relaxing with eyes closed. Remember the peace there is in silence.
17. Note things that chronically bother you and avoid them. Work on developing an awareness to the stressors in your life.
18. If you've been working 60 hour weeks, cut back. Research shows that productivity drops among people under high stress, but peaks under moderate stress.
19. Work at building a few supportive relationships. Remember friendship takes time. Those with supportive relationships suffer less consequences under stress than the socially isolated. Note the goodwill coming your way or it won't nourish you.
20. Give in when you have little to gain. Save your energy for what's important.
21. Be proactive, rather than letting other people and circumstances make your choices. Over-commitment is actually a lack of commitment, an unwillingness to say "yes" wholeheartedly to one option and "no" to others. The art of saying "no" and choosing involvements gracefully, forcefully, and respectfully takes practice and persistence.
22. If little things bother you a lot, dig deep for the reasons. Molehills often mask mountainous problems. If something major is causing stress, seek counselling.
23. When you're uptight, tense and relax muscle groups. Start with arms, then face and neck, then shoulders and abdomen, finally legs.
24. Work on developing the capacity to recognize when you are under stress. If you don't recognize the stress you are under, you'll never deal with it well.
25. If a stressful event is approaching, visualize yourself doing it well and in a relaxed manner. Visualization works!
26. When you arrive home from work and need to unwind, explain to your spouse and children that you need a half hour to yourself before grappling with family problems. If explained, family resentment will disappear.
27. Learn to eat well. Proper nutrition habits affe not only the body but the whole person. A properly nourished body is less vulnerable to stress reactions. Design an eating style appropriate for lifetime use.
28. Try to make work and living areas as pleasant and comfortable as possible with pictures,

Continued on Page 12

"Building The Image"

The Theme of the 1991 APEM Annual General Meeting.

It has often been said that everyone talks about the weather – but nobody does anything about it.

To paraphrase this – many, many engineers talk about improving the image of the profession but no one seems to know how to go about accomplishing it.

This year, at our Annual General Meeting in October, we will look at different ways and avenues which might lead to a heightened awareness by the general public of the important role engineering plays in making their lives easier.

1) A breakfast meeting speaker will discuss the advantages to the public (and the spinoff advantages to engineers) of a self-interest-oriented engineering organization.
2) A luncheon speaker will discuss the advantages accruing to the public (and to the engineering profession) if there were an advocacy-oriented engineering organization which could speak for the profession.
3) An afternoon panel discussion will have three distinguished Canadian speakers who will present the advantages to the public (and to the profession) of the TQM concept (Total Quality Management) – what it means to engineers in the 90's and how it can help us earn a better image through quality in our works and ways.

All this will take place on October 25th. Mark your calendar! Plan to attend, to participate, to learn and to contribute. □

C.E. Anderson, P. Eng., Councillor

By: W.G. McKay, P. Eng.

Carl Anderson, one of our new Councillors, a native of Thunder Bay and a long-time resident of Manitoba, graduated from the University of Manitoba in Geological Engineering in 1961. His career with the UMA Group began shortly after graduation, following a year with the Geological Survey of Canada. He is currently the Director of Planning and Development for the Manitoba and Northwestern Ontario region for UMA Engineering Ltd.

Carl is the immediate Past-President of the Association of Consulting Engineers of Manitoba, and a Past Vice-President of District 4 (Saskatchewan/Manitoba/Northwest Ontario and the Keewatin Region of the Northwest Territories) for the Canadian Institute of Mining and Metallurgy (CIM). In May, 1991, he retired as Chairman of the Environmental Committee of CIM, and at the recent annual meeting in Vancouver he served as Chairman of a Feature Session on the Environment and contributed to the adoption of an Environmental Policy for CIM.

Carl's work with UMA has often touched on the environment. For example, he served as the Resident Engineer for the Churchill River Diversion Studies. He later became the Director of the Earth Sciences Division for the Manitoba and Northwest Ontario operations.



C.E. Anderson, P.Eng.

Many of his more recent projects have been related to the management of waste as it affects the environment, such as mining waste management. Transportation has been another field, as he has been responsible for the location of highways, railways and pipelines.

His experience has taken him abroad in the water-resources field to St. Vincent and the Grenadines, in the British West Indies. He has completed a water-supply study for Dar Es Salaam, Tanzania and a natural-resources study in Thailand. More recently, in the transportation field, he was Project Director for a rail/land bridge project in Costa Rica.

Aerial photography and mapping operations for the UMA Group throughout Canada are also part of Carl's experience. He was General Manager of Western Photogrammetry Ltd., based in Toronto, from 1977-80.

Carl's love of the natural environment and outdoors is reflected in his summer island home in the Lake of the Woods area, where one can spend a very relaxing time away from most - but not all - of the modern traffic and conveniences. He and his wife Marilyn are avid downhill skiers, and I am sure that their objective would be to spend winters at the base of a mountain and summers at Lake of the Woods. Carl says that, now that his ACEM and CIM duties have decreased, he will have more time to contribute to APEM. His interest will lie in the direction of a standard of registration for national and international applicants to APEM. □

Team APEM Makes Top 12% in Manitoba Marathon Relay

By: S.M. Matile, P. Eng.

The clock read 3:23:02 as Dave Ennis, P. Eng. sprinted across the finish line. Dave had just brought Relay Team APEM to a respectable 59th place finish out of 488 participating teams: not bad for a first time out!

Teammates Bill Penny, Shirley Matile, Elliott Garfinkel and Audrey Bittner were all on hand at the University of Manitoba stadium to cheer their leader across the line (quite an impressive sight, all those matching white t-shirts with the words "Professional Engineers" emblazoned in black across the back!)

Will they do it again next year? You bet! And this time, Matile, (the slowest one!) will train for the event, and Garfinkel (the disorganized one) will get to his station on time! And who knows? Maybe they'll be able to keep pace with fellow P. Eng.'s Arkady Tsisserev, who finished the entire 26 miles, 385 yards (42.195 km) in an incredible 39th – place 3:11:12; or Don Burn, who finished in 27th place with the even more incredible time of 3:04:38; and if they start training now, perhaps they'll be able to catch up with 17th – place Alan Aftanas, who completed the event in an extraordinary 2:59:34! □



Dave Ennis, Murray Vanderpont (UMA) and Ron Bittner (Motor Coach) all warmed up for the last leg.



"Elliott, where are you?"



Garfinkel passes wristband to Bittner.



"I need a drink!"

Attention, Engineers' Wives!

The Professional Engineers' Wives Association invites wives of Professional Engineers in Manitoba to attend their membership tea on September 24th, 1991 from 1 to 3 p.m. at the home of Mrs. Hannya Klimenko, 451 Kingston Crescent. Prospective new members welcome. For further information, please contact Hannya Klimenko at 231-0554. □

Council Reports

April 8, 1991 *By: A.E. Ball, P. Eng.*

AT WHICH COUNCIL PONDERS THE WORLD'S UNIVERSITIES AND MONTANA'S BLUE SKIES.

The meeting began with crossing T's and dotting I's on the past minutes tabled for approval. Lengthy discussion ensued on the procedures and protocol for being admitted as a registered member before it was realized that the discussion entailed new business instead of old. Discussion stopped promptly. The financial statement was reviewed and it was noted that an unusually high number of members had not paid their dues this year. (Did somebody mention the R word?) And, of course, the standard fare of registrations and licences was approved.

Board of Examiners

The discussion that had started earlier, on the procedures undertaken by the Association to admit applicants for membership, was rekindled. One Councillor suggested that in the case of experienced immigrant applicants, perhaps one or two probationary general knowledge exams should be assigned, rather than a complete program of four or more exams. If the applicant obtained a satisfactory mark in his/her probationary exams, then sufficient proof of competence would be evident. If, on the other hand, the applicant passed marginally, then additional exams would be assigned. This procedure would apply specifically to applicants who have foreign academic qualifications that are difficult to assess for equivalency.

This subject obviously struck a chord with the Councillors, as it entailed some discussion, and the basic whys and wherefores of establishing academic qualifications were raised and discussed further. The topic culminated with a remark that the Association's purpose was not to grant membership for the sake of granting membership but rather to protect the public from the unqualified practice of engineering. Council agreed that this topic is already under investigation by a committee of the Board of Examiners, which is looking into methods of evaluating new immigrant applicants, and therefore required no more immediate discussion.

Geoscientists in CCPE

In a past meeting, Council had voted in favour of supporting full participation by geoscientists in the affairs of CCPE. Since this could be construed by some that the APEM only supported FULL participation, council reworded their motion to include support of any progress toward full participation. (Your guess is as good as mine as to whether this change really makes a difference to the CCPE Board of Directors or the geoscientists.)

"Blue Sky" Agenda

The formal meeting closed at 2:15, so with the remaining time Council briefly discussed some topics that will likely become hot issues later this year. These were, in no particular order of importance:

Technologists' Right to Title - The Law Reform Commission is preparing a discussion paper for the end of 1991, with hearings to be conducted in the spring or summer of 1992. (Keep your eyes on this one.)

Immigrant Registration - Here's this topic again! Apparently, increased public attention and media coverage have given the impression that the Association is unresponsive to the special situation of experienced immigrant applicants. The problem seems to be in recognizing academic credentials from foreign universities. (In all fairness to the Board of Examiners, can you imagine how many engineering-related courses are taught at the world's universities each year?)

Registration of Geologists - The trend across Canada has been to include geoscientists in the fold of the engineering profession acts. Council will very likely receive a formal request from interested parties in the not-too-distant future.

Work Experience Requirement for Registration - Here's a scary thought for all students and EIT's: the CCPE's proposed model for Standards of Admission considers the gradual increase of work experience from two to four years. (Funny how, as the years go by, this idea begins to sound better.)

This reporter certainly does not envy the Councillors who will have to deal with issues such as these. □

May 13, 1991 *By: D.S. Jayas, P. Eng.*

AT WHICH COUNCIL DISCUSSES SEVERAL ISSUES IN CAMERA AND LEAVES VERY LITTLE TO REPORT

Wm.M.A. McDonald, P. Eng., presided over the May 13, 1991 APEM Council meeting which began at 1:00 p.m. in the Association Boardroom. Financial statements and applications for licences, engineers-in-training, transfers, registrations and reinstatements were approved after a short discussion. Discussion concentrated on the registration of engineers-in-training (EIT) when they are not working under the direct supervision of registered professional engineers. In such situations, a log-of-experience must be kept during the applicant's term of registration as an EIT, and three professional engineers must be identified who can evaluate the engineering experience of the EIT. In my opinion, registered members should familiarize themselves with the registration procedure of new engineers and try to provide professional assistance to the young engineers.

Policy on Registrations and Appeals

A draft policy on registration procedures was considered by the Council. The new policy would allow prospective applicants to receive registration applications without disclosing their qualifications, which must be assessed once the applications have been completed and the prescribed fees have been paid. □

June 10, 1991 *By: V.L. Dutton, P. Eng.*

AT WHICH COUNCIL DISCUSSES LOGOS AND MANPOWER-ER-HUMAN RESOURCES

Could it have been the beckoning golf-courses that led to a brief meeting? Perhaps it was due, simply, to the end of the activities we associate with winter. Whatever the explanation, Council dealt with the conventional business in short order.

During the examination of the Financial Report, our Executive Director noted that our Association's income is down, appreciably, from what it was predicted it would be when the budget was draughted a year ago.

This caused your reporter to mull over an item in the Minutes of the previous Council Meeting. At that meeting, your Council decided to spend $6,000 to have "a Logo ... designed and produced by a professional graphics company."

Can you think of one good reason why our Association, which is a non-commercial entity, needs a logo, or needs to spend six kilobucks on buying a design which may be no more acceptable than was the winner of the Logo Design Competition of about three years ago? Since the Faculty of Architecture at the University of Manitoba is always looking for ideas for design problems, and if a logo is really the difference between success and failure of this Association, why not ask the professors to assign it to a class. Offer a modest prize and, if the winning design is found to be acceptable, sweeten the pot a bit. The student would be delighted and we would save "a packet"!

My O.E.D. (Oxford English Dictionary) says that a Guide is a "Book of rudiments, manual, etc." Since it does not include the word "guideline", I am forced to conclude that those engineers who do the writing for CCPE are helping to undermine our Canadian culture by failing to discriminate between English and Yanklish. The reason for this observation is that Council has received three CCPE "Guidelines":

1. Admission to the Practice of Engineering in Canada.
2. Promoting Continuing Competence of Professional Engineers.
3. Professional Engineering Practice in Canada.

Various Committees have been asked to examine these Guides and comment on them. Like all such documents received from CCPE, they are not binding on any of the constituent Associations but may be adopted if, as CCPE hopes, they are found to be useful to the Associations.

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Numbers Are Not Enough

M.T.M. Caners, P. Eng.
V.R. Dyer, P. Eng.

A national conference sponsored by The Canadian Committee on Women in Engineering (CCWE) was held at the University of New Brunswick, Fredericton from May 21 to 23, 1991. The conference, titled "Women in Engineering: More Than Just Numbers", was attended by 240 delegates from Newfoundland to the Northwest Territories - two thirds female and one third male. In addition to the authors, the Manitoba representation included Dr. Garland Laliberte, P. Eng., Dean of Engineering at the University of Manitoba and David Ennis, P. Eng., Executive Director of APEM.

This conference was the culmination of a series of regional public forums which provided experiences and initiatives with respect to female engineers and the distillation of over 150 briefs collected from across the country. The briefs were provided by high school teachers, curriculum specialists, engineering professors, deans, status of women representatives, government agencies, employers and engineering associations, as well as professional engineers and students.

Day One opened with an address delivered by Dr. Monique Frize (P. Eng. and CCWE Chairperson) followed by the presentation of fourteen research papers. Dr. Frize emphasized that we need more than just numbers; it is crucial that we make the environments in our universities and our workplaces welcoming to female engineers. Some of the papers presented initiatives by engineering faculties and employers of engineers to recruit and retain women engineers. Several described the situation in primary and secondary schools, namely gender equity in the classroom and the teaching of science and mathematics. Others outlined the views and initiatives by associations of professional engineers and of employers of engineers in Canada.

The keynote address at the evening reception was given by Kate Viscardi, Women in Engineering Centre, Southbank Polytechnique, England. The address was titled "Is It Fair To Recruit Women Into Engineering?" Ms. Viscardi stated that, in the UK, the percentage of women engineering undergraduates has reached a plateau at around 10%. The failure to sustain the very marked improvement of the early 1980's is explained by reference to differences in young females' socialization, school experience and society's expectations of them. Also important is the fact that we are dealing with intelligent people who will look at the welcome they are likely to receive in different professions. Ms. Viscardi also advocated that family-friendly policies (maternity leave, paternity leave, educational leave, etc.) should be available to both men and women so that the needs of all employees are met. She speculated that the existence of women engineers should act as a catalyst for change in working conditions, which would benefit both men and women so that life is more fair to everyone.

The speaker, in answering the question 'Is It Fair to Recruit Women into Engineering?' in the title of her address, concluded with "I would say, No, but it is far fairer than not recruiting them! And by examining ways in which unfair treatment arises, often unwittingly, we can minimize that unfairness and, eventually, eliminate it. That is why a conference such as this is so important."

Day Two opened with a presentation by Lino Celeste, President and Chief Executive Officer of the New Brunswick Telephone Company Ltd. Mr. Celeste discussed some of his company's initiatives to hire more women in skilled and professional positions and why he feels this would be beneficial to all the employees.

Later, a presentation of research done by Ada Forsythe of Abt Associates of Canada was delivered. The CCWE had commissioned Abt to do research into identifying effective practices to recruit, retain and advance the careers of women engineers. This involved seven faculties of engineering and six workplaces across Canada.

Among the guest speakers were Frank McKenna, Premier of New Brunswick and the Honourable William Winegard, Minister of Science. Both were very supportive of the initiatives of CCWE and had a very positive outlook for the future of men and women in the engineering and science fields.

Day Three included a workshop session where all delegates were placed in pre-selected groups of about fifteen. The groups included people from different backgrounds so that all aspects and ideas would be combined. The CCWE had previously refined and priorized the hundreds of recommendations of the 150 briefs so that the conference participants could review and refine them. In early 1992, the CCWE will release a final report based on the conclusions and action plans determined at such workshops.

Overall, the conference was very thought-provoking and enjoyed by all. All delegates expressed strong positive reactions to the conference and were grateful to have had the opportunity to participate. Most came away with an increased awareness of how everyone, including the individual engineer, can help our profession by opening their doors wide to both men and women so that a larger and richer human resource base can be achieved. □

Engineering Awareness Project

Continued from Page 1

During these informal meetings, students had the opportunity to reflect upon their engineering experiences. Heightened awareness of engineering was indicated by such statements as: "Now when I look at things, I wonder how they work and how scientists got the idea." and "I was surprised that there weren't that many girls that work there, because engineering sounds like such an interesting job".

Although the project entailed a half-day program, the impact of the project needs to be appreciated from a broader perspective. Science and technology are transforming the way we live. By the year 2000, ours will be a dramatically different world. The task at hand is to make our youth more aware of science and technology, to help them understand the changes taking place, and to prepare them for the challenges of tomorrow. The Engineering Awareness Project attempts to heighten science and technology awareness and stimulate interest and excitement in science ... "I think you've got me interested in engineering. So get ready for me! I don't know if math problem-solving or fractions have anything to do with engineering, but I'm good at both!"

The teacher component of the project would not have been possible without the financial support of APEM and Industry, Trade and Tourism. Further, the Fort Garry School Division was pleased to work collaboratively with the Faculty of Engineering on this joint project, and appreciates the effort made by the Dean and the professors in promoting science and technology awareness.



Testing strength in the geological lab.

APEM Editor's Note:

The Engineering Awareness Project was the brainchild of, and was largely organized by, Ms. Leslie Wurtak, Science Co-ordinator for the Fort Garry School Division. Ms. Wurtak was reacting to a request by Ray Hoemsen, P.Eng. that the School Division promote engineering science and technology awareness at the elementary school level. Her programme was supported by the Association's Public Relations Committee, who considered the inclusion of teachers in the programme to be particularly beneficial. The programme was, as expected, extremely well-organized and well-received. This Association is hopeful that Ms. Wurtak will be able to enlighten more students and teachers with a repeat performance next year. □

1991 Golf Tournament

Bogies, Birdies and Bouquets

By: W.B. Mackenzie, P. Eng.

The beautiful, little, 18-hole layout in Carman, complete with a new and impressive golf/curling clubhouse facility, once again hosted our annual golf tournament. This annual get-together is a sporting/social affair or, depending on the viewpoint, a social/sporting affair.

Either way, it was enjoyed by some 117 stalwarts who thrashed off the first tee and pitted their meagre skills against the challenges presented by lofty elms, tricky greens and the innocent-looking waters of the Boyne River. This small prairie river devoured vast numbers of golf balls during the day (three by the writer on one hole!). One foursome, the members of which shall remain unnamed, acquired a small, weather-beaten tree during the round, decorated it with red golf socks, carried it triumphantly around the course and into the clubhouse and presented it with due ceremony to Roy Houston. (The significance of all this is unknown to the writer).

After the shooting (but not the shouting) was over, Murray Vanderpont, our personable sports committee chairman and Pat Feschuk, our estimable vice-president, handed out trophies and prizes to the more successful participants - all accompanied by raucous applause and ribald comments.

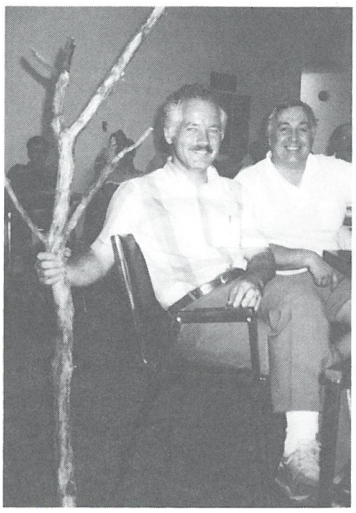
The Landon Cup, symbolic of golfing excellence, will have a new name added this year - Paul Maycher. Paul had the lowest score recorded for the day. Don Mulder will have his name inscribed on the Landon Trophy - he had the low net score. Ray Bodnar had the longest drive.

All in all, everybody was a winner. The event was eminently successful. Kudos to the sports committee - Keith Miller, Elliott Garfinkel, Harold Wilson and Julien Lavergne - for making all the arrangements.

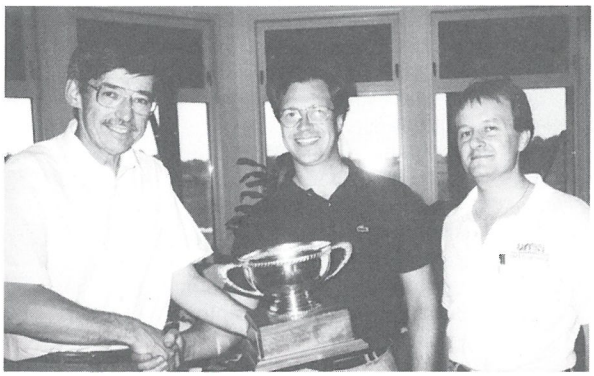
Special thanks go to firms who donated prizes. The list includes:- UMA Engineering Ltd., Wardrop Engineering Inc., Crippen Acres Engineering, Armtec, Cansel Surveying Equipment, Delcan Western Ltd., Canadian Portland Cement Association and Solmundson Engineering Group. □



Left: Pat Feschuk (L) and Murray Vanderpont (R) present Sullivan Trophy to Don Mulder.



Above: Bill Borlase (R), Roy Houston and "The Tree".



Left: Pat Feschuk (L) and Murray Vanderpont (R) present Landon Trophy to Paul Maycher.

Research and Development Up Close

By: D.G. Osman, P. Eng., Chairman, Research and Development Committee

The R & D Committee had the pleasure of a tour of the facilities of the Manitoba Research Council (MRC) following its meeting on May 29, 1991. Ken Puckall, P. Eng., who is in Business Development, served as a most informative guide through the various departments.

The tour began in the library where there is some state-of-the-art equipment for the use of clients. It has the ability to perform on-line literature searches in data banks all over the world, covering a vast range of subject matters. MRC is the only agency in the province with a set of VSMF (Visual Search Microfilm File) that is accessible to the public. It has 6,000,000 pages of vendor catalogue information. They also have a CD ROM system for the WHMIS and other information on hazardous concerns.

In the engineering division we saw the electronics and the mechanical sections. MRC can provide either or both services for any project. They have design staff doing equipment design modifications while providing the software and hardware (as well as the mediumware) to drive the unit. Prototyping and testing are all possible. Some of the work ranges from cyclic furniture testing, to metallurgical, to an environmental chamber, to load testing. They are certified for specific tests by the Standards Council of Canada. The recently-acquired CAD system is one of the most advanced available locally. One other service they provide that is unique is vibrational analysis, and they have had Manitoba Hydro and a bus manufacturer and a pulp and paper company as some of their clients.

The chemistry department is equipped to perform testing utilizing gas chromatographs and other sophisticated equipment such as a mass spectrometer. Its capabilities include air quality monitoring and water quality analysis. This section had been performing PCB analysis even prior to the spill on the Trans-Canada Highway a few years ago. Many types of chemical analysis are possible in their laboratories, including environmental analysis.

The tour proved to be most interesting. MRC offered to repeat the tour for any other groups of people who might be interested in the facilities.

The committee would like to thank Mr. Ken Puckall for his valuable time spent with us. □

Society For the Advancement of Materials and Process Engineering

Western Canada Chapter

Following the first meeting of the Western Canada Chapter, the following was released for those persons who may be interested in membership:

Contact: M. Sadowski, Chairman
SAMPE Western Canada Chapter
c/o EDO Canada Ltd. Calgary, Alberta
Phone: (403) 569-5400 Fax: (403) 569-5499

Attention Readers!

Do you have any news or information that you feel will be of interest to the membership? Any comments on articles in this or other issues of the MPE? Any opinions you'd like to share on the engineering community in general?

We'd love to hear from you! Letters to the editor, articles, photographs and editorials will be gratefully accepted at any time!

Editor

West-Man News

By: R. Menon, P. Eng.

The quarterly supper meeting of the APEM West-Man Chapter was held on Wednesday, May 22, 1991 in the private dining room at Brandon University. Over the last three years, since the chapter instituted supper meetings, most of the guest speakers had been Civil Engineers who spoke about various civil/municipal projects. Prior to the meeting, the Executive decided that an effort must be made to bring in speakers/topics of other disciplines.

The chapter couldn't have picked a better topic and speaker than Ed Zaleski, P. Eng. from Manitoba Hydro. Ed, representing the Electrical Engineering discipline, spoke eloquently about the development of Hydro power in the north, with special emphasis on newer developments such as Connawapa and the review process for the sale of power to Ontario. As a Civil Engineer, I found the talk fascinating and extremely challenging. Ed kept everyone's interest with a good mix of oral and visual presentation.



Ed Zaleski, P.Eng. addresses West-Man Chapter.



Ian Christianson and Pat Feschuk at West-Man Meeting.

The meeting was held for the first time at Brandon University. The food and the facilities received excellent reviews. APEM was represented by Vice-President Pat Feschuk. Pat and his driving companion Jon Gill proved to be able goodwill ambassadors from within the "beltway".

The chapter activities will resume in the fall with a golf tournament in September. Details will be sent out in early September. Until then, have a good, safe summer. □

News From Other Associations

By: J.W. Bogan, P. Eng.

Ontario

The Discipline & Enforcement Task Force completed an examination of the decrease in the number of complaints made in 1990 to the APEO.

The Task Force recommended considering some form of certification of authorization for "in-house" engineering ("in-house" engineering provides engineering services to employers only, but may indirectly affect public health and safety).

The Task Force also recommended increasing public awareness and making the complaint process more proactive.

In APEO's 1990 Annual Report, President A. John Bate, P. Eng. stated that the Association emphasized education and student outreach during the year. Another priority was to make the profession more comfortable and welcoming to women.

Newfoundland

The Newfoundland Association has struck a committee to pursue its interests in the Hibernia Oil Development Project.

Two major issues are:

(i) The transfer of technology to engineers and geoscientists in Newfoundland and maximizing opportunities for provincial involvement; and

(ii) The requirement that designs and plans for projects constructed in the province be stamped and certified by an engineer registered in Newfoundland.

The Committee submitted its report to Council in March.

Saskatchewan

A report was given on the "Breaking Barriers and Building Bridges" public forum, held February 26 in Regina. This was the fourth conference called by the Canadian Committee on Women in Engineering. Women currently comprise only 3% of all registered Canadian professional engineers. Historically, women have been deterred from engineering by an obstacle path of inadequate education, neglect, antagonism, and sexism.

A research team from Saskatchewan conducted two experiments aimed at producing foam metals in zero-gravity. The tests were performed aboard NASA's KC-135 zero-gravity aircraft.

Alberta

Premier Gary Filmon addressed the APEGGA Summit Awards at the Calgary Convention Centre on April 14. His speech included discussions on the engineer as a leader, constitutional change and sustainable development.

B.C.

The April issue of the B.C. Professional Engineer was devoted to the discussion of earthquake hazards in southwest B.C., including expected geological events, earthquake preparedness activities, disaster preparedness and concerns previously identified to the provincial government. □

Council Reports

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A more contentious document, DRAFT STATEMENT - CCPE MISSION AND GOALS, was considered. (Goals? More Yanklish from the CCPE!) "Goal 7" is "To provide national programs for the professional, social and economic benefit of the members of constituent associations." With that kind of objective , you will appreciate why Past-President Buhr (who is our representative to CCPE) has asked for comments from the other Councillors before the end of June. I'm sure he would appreciate yours, too, should you wish to study this document at the Association's offices. Yes, you would be a bit late – so hurry!

Council was not finished with CCPE. They had received a letter from Mr. Piper, P. Eng., Chairman of the Canadian Engineering Manpower Inventory Committee of the Canadian Engineering Manpower Board (now renamed Canadian Engineering Human Resources Board) and were much concerned about protecting your monies on this one. "The CEMI Committee has been established by the Canadian Engineering Manpower Board to make recommendations aimed at improving the inventory process. It provides strong support to CEMB's mandate of becoming the recognized authority on engineering manpower information in Canada. The Committee will conduct most of its business through correspondence and by telephone and may meet a few times during the coming year." Mr. Piper is inviting the Association to nominate one of us to the CEMI Committee for the coming year. Want the job? One of the Councillors suggested that you should be from an organization that specializes in information systems (or some such activity) but it looks to me like the greatest asset an applicant might have is plain old common-sense. Since you would also be working with a number of civil servants, a pronounced ability to resist being contaminated by the mind-set of Ottawa would also appear to be useful. However, a guaranteed way of receiving this appointment would be to tell Council that you, or your firm, would be willing to finance this appointment, which is for a term of one year. □

Coming Events

"MANUFACTURING 91"
The West's Leading Conference in 1991 for Manufacturing and Related Industries

September 19 & 20, 1991
Calgary Convention Centre
For further information contact:
M. Mishio (403) 422-0561 Edmonton or
John Emery (403) 268-2771 Calgary.

Western Canada Water & Waste Water Association
1991 ANNUAL CONFERENCE

September 24 - 28, 1991
Winnipeg, Manitoba
For further information contact;
Paul A. Land
Operations Dept., City of Winnipeg
604 St. Mary's Road Winnipeg, Manitoba
Telephone: (204) 986-3575

THIRD HALF-DAY SEMINAR ON THE QUALITY OF INDOOR LIFE
Sponsored by Canadian Construction Research Board, Manitoba Chapter
Topic - "Light & Colour"

September 27, 1991
To be held at CIIT - 435 Ellice Avenue, Winnipeg
For further information contact:
Ed Lach, Secretary,
CCRB Manitoba Chapter,
1329 Niakwa Road East,
Winnipeg, Manitoba
Telephone: (204) 945-6131
Fax: (204) 983-8835

SYMPOSIUM ON CANADIAN ENVIRONMENTAL REGULATIONS AND ISSUES IN THE SHORE ZONE
Sponsored by National Research Council - Hydraulics Laboratory and Associated Provincial and Federal Departments.

October 8 & 9, 1991
Location – Mont Ste. Marie,
National Capital Region
For further information contact:
D.H. Willis, Hydraulics Laboratory,
Bldg. M-32, National Research Council,
Montreal Road,
Ottawa, Ontario K1A 0R6
Telephone: (613) 993-6629
Fax: (613) 952-7679

"BUILDING SCIENCE INSIGHT 91"
Sponsored by Institute for Research in Construction, National Research Council

October 25, 1991
Winnipeg, Manitoba
For further information contact:
BSI '91 - Technology Access
Group, Institute for Research in
Construction, National Research
Council Canada, Ottawa, Ontario K1A 0R6
Fax: (613) 954-5984

CANADIAN WASTE MANAGEMENT/ WASTE TECH '91 CONFERENCE
In Conjunction with National Solid Wastes Management Association, Washington, D.C.
Theme "It's Time for Action"

October 30 - November 1, 1991
Toronto, Ontario
For further information contact:
Susan Clarke,
Technology Development Branch,
River Road Environmental
Technology Centre,
3439 River Road South,
Ottawa, Ontario K1A 0H3
Telephone: (613) 991-1956
Fax: (613) 991-1634

Prescription for Dealing with Stress

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plants and ornaments. Create a living or working space that invites relaxation, intimacy, meditation or stimulation – nest building!

29. Don't try to control family members. Be supportive instead of nagging. Surrendering is not to "give up"; rather, it is to "let go" and "let be".
30. Take a warm shower or bath to soothe tense muscles and provide a few moments of "Sensory Deprivation" – also known as privacy.
31. Treat yourself kindly. The willingness to be gentle to yourself is a health-giving attitude that reduces wear and tear and conserves energy.

Finally, don't use any of these techniques as a panacea. Develop and use a repertoire of techniques for dealing with the stresses in life.

Dr. John H. Howard is a management psychologist and professor of Business Administration, University of Western Ontario. He is a co-author of "Rusting Out, Burning Out, Bowing Out; Stress and Survival on the Job." □

Call for Papers

11TH SYMPOSIUM ON ENGINEERING APPLICATIONS OF MECHANICS.
Theme - "Engineering Plant Life Assessment"

Abstracts to be submitted by September 30, 1991.
Conference to be held May 11-12, 1992
University of Regina, Regina, Saskatchewan

For further information Contact:
Secretary to the 11th EAM Symposium
Faculty of Engineering,
University of Regina,
Regina, Saskatchewan
S4S 0A2
Telephone: (306) 585-4159
Fax: (306) 585-4855

CCPE Annual Meeting

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and provides for the election of Officers and members of the Executive Committee. Again, I will attempt to highlight a couple of items that should interest our membership.

CCPE accumulated a surplus of $5,762 in 1990 on gross revenues of $1,473,594. A surplus of $18,550 has been budgeted for 1991 based on gross revenues of $1,462,200, with no increase in dues from the membership for 1992.

Another item that should be of interest to the Manitoba membership was the election of Dr. Garland Laliberte, P. Eng. to the Executive Committee of CCPE. Garland has been a member of our Association since 1967. He has served on numerous committees of APEM, was President in 1988-89 and was the CCPE Director for Manitoba in 1989-90. He is currently the Dean of the Faculty of Engineering at the University of Manitoba.

The above is a brief summary of the annual meeting of CCPE. Additional information may be obtained by contacting the Association office. □

ROSTER UPDATE/CHANGE OF ADDRESS NOTIFICATION

Full Name _____

New Address _____

City _____ Province _____

Postal Code _____ Country _____

Employer _____

Position/Title _____

Bus. Tel. _____ Date Effective _____

Mail to: A.P.E.M., 530-330 St. Mary Ave. Winnipeg, Manitoba R3C 3Z5 or FAX (204) 942-3718