THE MANITOBA
Professional Engineer
October, 1996
APEM

Engineers of the World, Unite! Our Profession is Under Attack!

By: S.C. Alford, P.Eng.

The harsh winter and wet spring of 1996 often led to less-than-ideal street conditions and resulted in a barrage of disparaging remarks and jokes, generally directed at engineers. It seems that the City of Winnipeg's snow-removal and road-maintenance programs are always taking it on the chin. One of the media outlets even had a contest to find the worst potholes. I have some limited understanding of the challenges faced by city engineers, and I know that most of the people making these derogative remarks don't know much about civil engineering or the realities of civic politics. What has been even more disturbing is that some of these remarks have come from fellow engineers.

I was recently going through my desk, and I happened to come across the Professional Engineers Code of Ethics, a document I had not read in a while. I skimmed through it and was pleased to find that it does prescribe effective measures for protecting the profession's reputation. It was obvious that the drafters of this code believed, and I agree, that our conduct, both at and away from the workplace, plays an important role in shaping how our profession is judged by the public at large.

Engineers are human, and it's only natural for people around the coffee table to express opinions on a variety of topics. (Knowledge of the subject area rarely seems to be a prerequisite!) Engineers should, however, realize that off-the-cuff remarks about any engineering-related activity can be a violation of the code. As engineers, we must remember that, when we speak, we speak as engineers, and the Code of Ethics applies whether we are talking to clients or friends. While it may be clear to the speaker that the comment is made as a joke or is not meant to be a professional opinion, the listener may be taking your comments seriously. The Code says we must "refrain from expressing an

Continued on page 2

APEM Association of Professional Engineers of the Province of Manitoba

77th ANNUAL GENERAL MEETING PROGRAM

Friday, October 25, 1996
at the Masonic Temple

12:00 noon
Lunch
1:00 p.m. – 4:00 p.m.
Two Professional Development Sessions:
"The Professional Engineer as a Contract Employee"
and "Financial Liability of the Employee Engineer".

Saturday, October 26, 1996
at the Niakwa Country Club

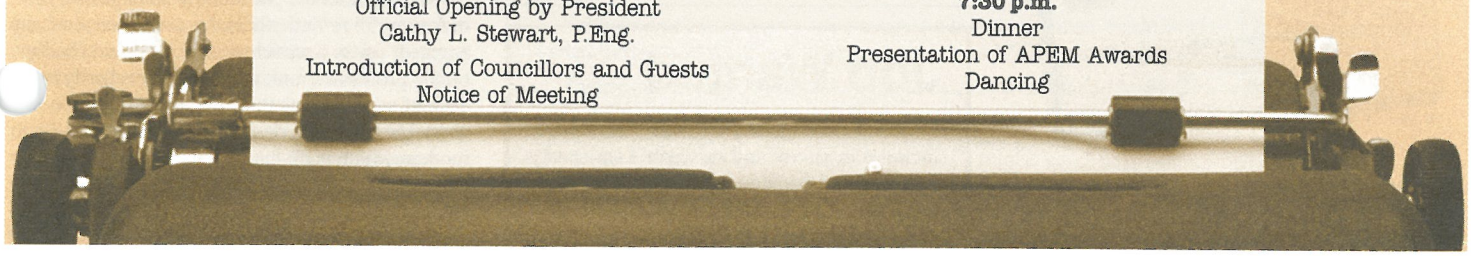
7:30 a.m.
Registration (Banquet Room)
8:00 a.m.
The Niakwa Breakfast Buffet

APEM ANNUAL BUSINESS MEETING

9:00 a.m. – 12:30 p.m.
Official Opening by President
Cathy L. Stewart, P.Eng.
Introduction of Councillors and Guests
Notice of Meeting
Minutes of the 1995 Annual General Meeting
Declaration of Councillors Elected
Receipt of the Auditor's Report
Appointment of Auditors
Review of the 1996-97 Budget
Accountability Session:
"Manitoba Association of Architects"
"The Engineering & Geoscientific Professions Act"
"Certified Technicians & Technologists Association of Manitoba" and
"NAFTA"
Appointments to the Nominating Committee
By-law Changes
Reports from Committee Chairs
Recognition of Retiring Councillors
Induction of the 1996-97 President

6:30 p.m.
Reception

7:30 p.m.
Dinner
Presentation of APEM Awards
Dancing



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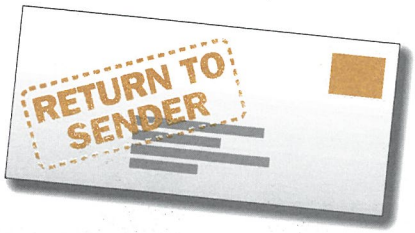
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G.P. Swaine, P. Eng., Thompson
R. Menon, P. Eng., Brandon

Opinions expressed are not necessarily those held by the APEM or the Council of the APEM.

WE HAVE LOST CONTACT. MAY WE HAVE AN ADDRESS?



C.L. Allen
M.L. Ayari
S.A. Dencsak
A.J. Peterson
A.W. Ptak
I. Sabau

Swiss Tunnels

By: V.L. Dutton, P.Eng. (Ret.)

From: Sous les Alpes, le plus grand tunnel du monde. Science et Vie, Jan. 1996, pp. 96-101.

The Europeans have been battling the Alps for a long time. Hannibal chose to take his army, with their elephants, through the Col du Montgenèvre at 1850 metres. That was about 100 b.c.e. (before the Christian era), and the Swiss have been struggling over those mountains ever since. However, today's traffic across the Alps is carried on modern elephants – trucks – and there are thousands of them passing through the country daily. The Swiss were beginning to see their passes becoming over-loaded and their valleys, through which the roads to the summits run, becoming increasingly polluted. When the trucks were sent by rail, the sizes of the aging tunnels placed a severe limitation on the size of truck that could be used.

Tunnelling methods have changed considerably since Canada's famous Spiral Tunnel in the Kicking Horse Canyon was built and, if a pun is acceptable at this point, the Swiss are at the "cutting edge" when it comes to punching holes through mountains. Today, four new tunnels are being constructed through the Alps. These "holes" are for railway use as the Swiss now require trucks to be carried by rail through their country.

The tunnel to service the Lyon-Turin line will be 54 km long and will be at a mean elevation of about 500 m. This line is scheduled for opening in 2002, at which time the TGVs will make the trip in "une heure vingt". The three-hundred freight trains, per day, will take a bit longer.

The other three tunnels are:

Berne – Milan: 33 km.

Zurich – Milan: 57 km.

Munich – Verona: 55 km.

I keep seeing the shades of Hannibal and his mahouts shaking their heads in disbelief. □

LICENCES ISSUED JULY & AUGUST, 1996

S.Z. Akhtar (DE)
M.J. Brooks (ON)
A.E. Cavadeas (WI)
D.B. Lepage (AB)
R.R.J. Lunt (MA)
R.I. Phipps (AB)
N.I.R. Ross (AB)
R.W. Savage (ON)
D.P. Schlereth(AB)
L. Sondak ((ON)
E.G. Wong (CO)

NEW MEMBERS REGISTERED JULY & AUGUST, 1996

T.D. Coombs
H.G. Dreyer (AB)
H.P. Fahlman (SK)
Y.E. Haddad (ON)
P.G. Kovacik (AB)
G.J. Lagimodiere (SK)
E.R. Levick (ON)
A.B. Litke
D.J. Mainprize
W.I. McLernon (AB)
B.J. Mitchell
J.A. Noguera
F.S. Qie
H.R. Rudolf (SK)
D.G. Scott
K.J. Sears
A.C. Seymour
J.V. Smith
V.M.E. Story
W.J. Witherspoon
I. Witkowska
A.L.N. Yap

ENGINEERS-IN-TRAINING ENROLLED JULY & AUGUST, 1996

A.J. Baryla
R.T. Bjarnason
J.A. Blatz
H.I. Boulet
M.J. Coyne
M.D. Ducharme
R.D. Duncan
T.G. Edginton
T.L. Ellchuk
D.M.R. Fuchs
E.F. Gala
R.E. Haller
D.D.J. Himbeault
W.T. Jackson
X. Jiang
D.A. Klassen
P.J. Kochan
D.R.S. Koschik
K.D. Kotowich
C.M.J. Lodge
D.B. Loree
L. Nguyen
J.M. Nilsen
D.L.J. Perron
J.F. Predergast
D.J. Rob
H.G. Roche
J.B.C. Rogers
K.D. Shaw
K.A. Truderung
H.S. Williams

Job Wanted

Civil EIT seeking employment. Experience includes inspector and surveyor's assistant. For more information call 667-6822, ask for Tony.

Engineers of the World, Unite!

(Cont'd from page 1)

opinion publicly on an engineering matter without being qualified to do so, and without being aware of the pertinent facts." It also states that "the professional engineer should uphold the honour and dignity of the profession". By following the code, we can prevent misunderstandings and protect the reputation of our profession. You'll notice that, when you meet doctors and lawyers, they are very careful about making comments that could be considered medical or legal opinions. There is no reason for us to follow a lesser standard.

When someone, particularly an engineer, makes a glib remark about the competence of any engineer (even a nameless one), it reflects badly on the profession and, in turn, reflects badly on each of us. So the next time a friend remarks about the idiot who designed his computer modem which is on the fritz or the incompetent person who planned the reconstruction of his street, don't just nod your head and chuckle. Stand up for your profession! □

President's Message

C.L. Stewart, P.Eng.



Farewell, but not Good-bye!

Congratulations! You have survived a year of many challenges and changes. Change is perhaps the most enduring reality of our times. It has often been said that the long-term survival of any body – from the smallest organism to the largest organization – is dependent on its ability to cope and change – "adapt or perish". I am proud to have participated in discussions and actions that pave the way for APEM to meet the next millennium in a very healthy mode. The issues confronting us now, and in the future, have fundamental and far-reaching implications and may very well test our survivability. The underlying changes are particularly critical because they require everyone's involvement if they are to succeed. Therefore, I strongly urge you to participate at our annual general meeting on October 26 so that you are fully informed and involved with the issues facing this Association.

Many of the highlights of the past year are covered in the committee reports included in this issue, so I will review just a few of the major challenges that we have been, and are currently, facing.

Technologists and the Engineering Team

Some of you may be aware that a task force has been meeting with CTTAM (Certified Technicians and Technologists Association of Manitoba) for the past several months and we are very close to recommending a memorandum of understanding (MOU) to Council, that would assist the progress of our draft act in the legislature, provide support for a right-to-title act for the technologists, and provide a framework for APEM and CTTAM to establish joint working groups to define and refine our relationship into the future. As a result of these discussions, the Legislation Committee has included an exclusion clause for technologists in the draft Engineering and Geoscientific Professions Act being forwarded to Council. The exclusion clause is drafted to follow the same premise as the exclusion clause for the natural scientists. Because the new definition of engineering in the draft act is expansive, the exclusion clause demonstrates that the act is not meant to restrict qualified persons from practising the occupations for which they are trained. These discussions have been productive because of the vision and efforts of Barry MacBride. Barry has convinced those of us involved to set aside our entrenched positions and work towards satisfying the interests and needs of the public of Manitoba and both Associations.

Negotiations with the Manitoba Association of Architects

This task group, led by Hans Boge, is to be thanked for its perseverance and commitment to a process which, at times, must seem thankless and never ending. APEM recognizes that there are two acts in the province of Manitoba – *The Engineering Profession Act* and *The Architect's Act* – that mandate overlapping scopes of practice. To avoid conflict and clarify our understanding of the practice of architecture, APEM proposed that the two associations develop a list of tasks, in the planning, design, and construction of buildings, that ought only to be undertaken by an architect. The intent of this proposal was to ensure that our members understand the boundaries of their practice and recognize when they are required to obtain the services of an architect. The MAA has not been committed to solving these issues in joint discussion and has proceeded with the prosecution of a professional engineer for "practising architecture". Essentially, the architects have taken the issue of professional boundary on two specific projects to the courts and asked a judge to decide. In the court proceedings, MAA acknowledged that there is no issue of competence in the work done by the engineer. Thus it appears that MAA is compelled to protect its "exclusive turf" and have the courts assist in the delineation of the turf boundaries. It is our belief that the public is not well served by using the law as a means to enhance the standing of one design professional over another. The client deserves the opportunity to select the category of licensed professional to engage. The Minister of Labour has offered to provide a mediator to facilitate resumption of joint discussions. Perhaps this will be the catalyst needed to resolve this issue.

ORAP

The Organizational Review Action Plan (ORAP) task group, led by Doug Chapman, has struggled with the organizational structure, communication and reporting links of APEM's committees and task groups. I outlined the proposal in my June address. However, the implementation plan is still under development. I had hoped to be able to report that this was a "fait accompli"; however, my goals exceeded the length of this year. The results of ORAP and the long-range planning will bring some significant changes to the operating environment of APEM in the next year, including a new staff member to help with the many changes required by its implementation.

As I complete my term as President, I'd like to express my sincere thanks to the staff, Council, and volunteers of the APEM. It's been a tremendous honour and privilege to be your 1995-96 President. I am confident that the Association will continue to meet the challenges for change that it faces – because of the many talented individuals who bring their dedicated and professional support to the Association. It has been an exciting, interesting, and memorable year, and although I leave the office of President, I look forward to continuing to contribute. I know that your incoming President is eminently qualified, and I wish Mal Symonds and his Council every success in the coming year. Mal, you can count on my support! □

Did You Know...



A bolt of lightning

Nitrogen is indispensable for life on Earth. However, plants cannot assimilate it directly from the atmosphere. Thus, they are forced to use that which has been "fixed", either by bacteria in the soil or by lightning. In the past, it was thought that bacteria were the main source while lightning accounted for only ten million tonnes per year. However, Pub Franzblau in New Mexico has "measured" the quantity fixed by lightning at a billion tonnes per year. □

Letter to the Editor

Sir:

This series ("Words for Everyone"), by M.S. O'Laughlin, P.Eng., in the August issue of this publication, is timely. However, the proposed substitution of "trade worker" for "journeyman" is unsatisfactory, in my opinion.

A journeyman is someone who has successfully completed his/her apprenticeship in the particular trade. Thus, the term, journeyman, carries a sense of qualification that "trade worker" does not.

Perhaps one of our readers can suggest a better term than "trade worker". In the meantime, I shall likely continue to use "journeyman" since I find "journey-person" to be too clumsy.

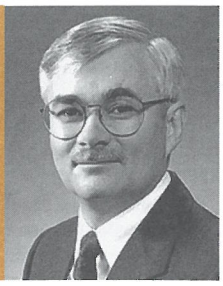
Incidentally, I have looked, every time I have passed the new bridges on Main Street, and have yet to see a "journeywoman" amongst the carpenters on those jobs. Do we not have to use a bit of common sense in this business of descriptors for workers?

Very truly yours,

V.L. Dutton, P.Eng. (Ret.)

CCPE President's Message

Daniel Verreault P.Eng.



Engineering: A profession without national borders!

No one will argue that our profession has been, and continues to be, an essential component of nation-building. Engineers play a significant role in a country's development. In fact, being recognized as an infrastructure builder carries with it a plethora of limitations and problems – the subject of a future article...

The health of our public finances has, for many years, significantly abated our thirst to design, build, and innovate. Unfortunately, in many jurisdictions today, public accounts are unable to keep up with even the most basic maintenance program. As a result, Canadian engineers and firms find foreign markets very attractive. According to the Association of Consulting Engineers of Canada, the trade in business and professional services represents an estimated 38 percent of Canada's service-related exports, ranking second in export value only to automobiles and automotive parts. Trade in engineering services is very important to Canada, representing an estimated $600 to $800 million annually. In order to allow Canadian engineers to compete worldwide, the qualifications, competence, and professional stature of Canadian engineers must not be questioned. They must be permitted to practice anywhere in the world without impediment and at a moment's notice. Opportunities are being lost every day in countries which have imposed non-tariff barriers.

It is for the above reasons that the profession has directed the Canadian Council of Professional Engineers (CCPE) to actively pursue mutual agreements with other countries. At present, the CCPE is a signatory to a multilateral agreement that recognizes engineering programs in England, Ireland, Australia, New Zealand, Hong Kong, South Africa, the United States, and Canada. A mission to France is scheduled for this fall. Lastly, the Mutual Recognition Agreement (MRA) signed with the United States and Mexico, under the NAFTA framework, is the most comprehensive undertaking to date.

As a result of a negotiation process that spanned over two years, the MRA enables a registered Canadian engineer, with eight years of experience after graduating from an accredited program, to obtain a temporary licence in the United States or Mexico without having to write a technical examination. Prior to this agreement, the Mexican service industry was closed to foreign engineers, and a registered Canadian engineer who wished to practise in the United Stat was required to write 16 hours of technical exam inations. Although the agreement is not exactly the one we favoured, it is nonetheless an important first step towards eliminating restrictive non-tariff barriers. The result of a negotiated process with important political overtones, the agreement contains a sound framework for future negotiations to be initiated with several other countries.

As expected, not everyone agrees that the NAFTA framework is advantageous. Opponents maintain that such an agreement will result in incompetent and unqualified foreign engineers practising in another jurisdiction. This protectionist argument proposes that the national system is superior and that foreign qualification systems are second-rate.

Although implementation of the terms of the NAFTA has yet to be completed, significant progress has been made. The ratification by the United Mexican States was formally announced in February of this year, and it is expected that several provincial/territorial associations of professional engineers will also ratify it before year-end. We also expect that a number of U.S. states will ratify it in the near future.

Although the devil is in the details, the CCPE strongly urges all provincial and territorial Councils to ratify the agreement, as it clearly serves the public interest and our profession well as we en into the next millennium.

Mandatory Reporting – Everybody Needs It!

By: J. Lucas, P.Eng.

The world is moving towards more, better, and faster – and Professional Engineering is no different. In fact, many people believe that we should be "leading the pack" and not playing "catch-up" as we appear to be doing now in the area of Mandatory Reporting of Professional Development.

Professional Development is not in question, as it is the basis of every successful profession and career. It is what has moved us from the fresh graduates we all once were (remember being ready for anything and good for nothing?). So the questions are "why report?" and "why mandatory?"

Duty and Ethics

The APEM Code of Ethics requires that all members maintain continual competence within their fields of practice. In addition, the Engineering Profession Act requires that the APEM regulate and maintain the practice and standards of engineering within Manitoba. To stand up to outside review, it is not enough that we meet or even exceed these requirements, we must be clearly seen to achieve these ends. Direct input, in the form of Mandatory Reporting, is a clear indication that we have all adopted the Engineering Profession Act and Code of Ethics with professional dedication.

Bench-Marking

Each profession is judged between jurisdictions – and the APEM is no different. We are evaluated in our standing with, and compared to, other associations. While it is not necessary to push to be the leading edge, it certainly is poor performance to appear to be fighting the improvement wave. Our profession is certainly moving towards continuing professional competence (CPC) as a requirement for registration renewal. In the U.S., five states have mandatory CPC in place, and an additional 20 jurisdictions are moving in this direction. This is the trend, and we have the opportunity to react proactively and even set the pace!

Registration Transfer

As mandatory Professional Development becomes the standard in other jurisdictions, it is unlikely that a transfer into these jurisdictions will be permitted with no personal record of PD activity.

Self-Regulation

We have been granted the privilege of self-regulation. Most members would support the belief that we are the best people to regulate our profession and activities. The Law Reform Commission, however, questions the efforts that professions are making to fulfill their obligations to the public. We will have to justify why we deserve to maintain the right to self-regulation. Mandatory Reporting is an effort that can clearly be defined as in the public interest.

Member Response

Sure, the concept is the right thing to do and this is the best time to do it; but why not just request voluntary reporting? Some of you may remember the APEM voluntary reporting program of the late 1980's. Unfortunately, our response to that plan was about a two percent feedback level and it was quickly dropped into the "history" file. Clearly, any reporting program we put in place will have to be effective; and, to move in this direction, we all must show our commitment to making it work.

Benefits to the Public

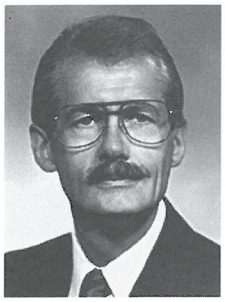
- Higher standards of performance.
- Greater confidence in the profession.

APEM Benefits

- Increased performance in the public interest.
- Improved credibility as an Association.
- Better understanding of activities and needs of members.

Continued on page 16

Executive Director's Report



D.A. Ennis

Most of the activities of the Association are reported on elsewhere in this publication by the committee Chairs, the President and the Director of Admissions. This report is confined to matters not addressed by them.

Membership

The status of, and changes to, the membership over the year is:

Membership on July 31, 1995			3,550
Plus	registrations	141	
	transferred-in	30	
	reinstatements	10	
		+181	
Less	resignations	75	
	transferred-out	7	
	deregistered	53	
	deceased	12	
		-147	
Membership on July 31, 1996			3,584
The breakdown by categories is:			
Full members			3,049
Non-Resident members			321
Retired members			166
Deferred Dues Members			23
Life Members			25
			3,584

Of the 141 members who were registered with APEM, 76 are residents of other provinces who are also members of their provinces' engineering Associations. We welcome them to APEM.

GST and Dues

Members will notice when they receive their invoices for their 1997 annual dues that they will now be required to pay GST on the dues. This requirement was introduced, virtually without notice, by the Government of Canada on April 23, 1996. Before that date, the Association had been able to elect to pay the GST on its applicable expenses and avoid charging it on the dues. This bad news is mitigated by the fact that members employed by GST-registrants will be able to claim rebates when they file their 1997 income tax returns. The claim is made using Revenue Canada's Form GST 370 E (92/12). Copies of the form and an example will be available through the Association office.

Had GST been in effect in 1996, members would have paid $211.86 in total. The payment in 1997, with GST included, will be $214.00. The Council has decided that, since the designated Fund is at an appropriate level, there will not be a By-law 43 (Discipline By-law) assessment. There will, however, be an increase in the Annual Dues for EITs (from $50.00 to $75.00) to bring them more in line with the Association's costs for providing the Pre-Registration Program.

Premises

This year, after more than twelve years in the same location, the Association relocated its premises from downtown Winnipeg to a location on Pembina Highway near Stafford Street. The move was prompted by the fact that the landlord was unable to renew the lease, which was due to expire at the end of September, 1996, and offered a financial incentive to vacate at the end of May. The new premises are much more accessible and provide ample free parking for both volunteers and visitors. It should serve the Association well as it moves into the 21st century.

Operations

As Treasurer, I report that the Association is in a sound financial position. The level of reserves is such that it could sustain the operations for in excess of one year.

As I have mentioned earlier, much of the activity of the Association is reported elsewhere. Some of the other matters that the Association has been involved with were:

- The Manitoba Law Reform Commission's Report on Regulating Professions and Occupations. While it provides many sound recommendations, it also includes some that are of concern to both your Council and other professions. APEM has made its support and concerns known to the Minister of Justice and has participated in an inter-professional group monitoring Government's intentions on implementation of the proposals. The Canadian Council of Professional Engineers (CCPE) has also provided the Minister of Justice with a position paper on the matter.
- A report to the CCPE with recommendations on facilitating the adoption of an electronic sealing system for all professional engineers in Canada and providing information on the benefits and risks associated with the preparation, transmission and archiving of documents in electronic form.

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Director of Admissions' Report



S.M. Matile

Between August 1, 1995 and July 31, 1996, this Association received 285 applications. Of these, 23 were referred to the Board of Examiners for assessment of the applicants' academic credentials, 87 were enrolled as Engineers-in-Training (EITs), 75 were registered as out-of-province members in accordance with the Interim Inter-Association Mobility Agreement, 26 were transferred in from other provinces, 14 were re-instated to membership, and 60 non-resident Canadian and U.S. engineers were granted temporary licences to practise engineering in Manitoba.

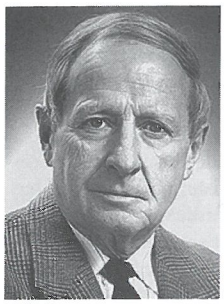
Enrollment as an EIT is now a mandatory prerequisite to registration for anyone not previously registered as a professional engineer in Canada. The files of all EITs are reviewed on a regular basis by this Association's very hard-working Experience Review Board, which monitors the progress of the EITs and essentially guides them along the path to registration. This year, the Board conducted 251 EIT file reviews, and recommended the registration of 67 EITs, all of whom were subsequently registered by the Registration Board. Of these, 66 were "grandfathered" in under the two-year work-experience requirement, and one was actually a four-year EIT (most of the four years, of course, having been credited retroactively).

During the year, Admissions procedures and processes were continually reviewed, revised, and improved. The Pre-Registration Program for EITs was refined; the six-year work-experience requirement for persons without recognized engineering degrees who qualified for registration through the examination process was addressed; and the procedures for enrollment in the examination program were re-visited and refined. In addition, provision was made for APEM to participate in a national pilot project – one which would see the technical engineering examinations set nationally, rather than locally – and which has the potential to save this Association a great deal of time and money. (The pilot project, being delivered courtesy of the Ontario Association, will be conducted for the first time this December.)

On top of all this, the computerization of the office was essentially completed. The database has now developed to the point that the Board of Examiners', Experience Review Board, and Registration Board agendas are largely computer-generated. (Of course, we are still in the process of putting the finishing touches on the computer

Continued on page 13

Investigation Committee



Wm. M.A. McDonald, Chair

Members

D.E. Cross
F.M. Fowler
T.H. Gillman
D.G. Hodgkinson
R.P. Hoemsen
R.A. Johnson
E.I. Lexier
W.J. McCulloch
J.R. McDougall
I.H. McKay
J.A. Terris
S.L. Ursel,
(Liaison Councillor)

The Investigation Committee is involved in the investigation of complaints and concerns received from both the public and members of the Association. The actions of the committee are conducted under the authority of By-Law 43 and guided by the Act, the Code of Ethics, and the Mission Statement of the Association.

"To serve and protect the public interest by governing and advancing the practice of engineering in accordance with the Engineering Profession Act of Manitoba."

In the past year the committee held nine meetings. In addition, there were numerous sub-committee meetings to consider the various files. A total of 24 files were reviewed. Of these 24 files, ten were dismissed, and two led to an informal caution and a letter of apology to the complainant from the engineer in question. A total of 12 files are still active.

Types of Complaints:

- Eight complaints were brought forward with respect to works involving residential buildings.
- Three complaints involved sewage and lagoon problems.
- Five complaints resulted from situations where an engineer was concerned with the action of another engineer.
- Eight complaints resulted from concerns of various agencies and individuals on the work and conduct of engineers.

In addition, the Investigation Committee provided direction and advice on the following:

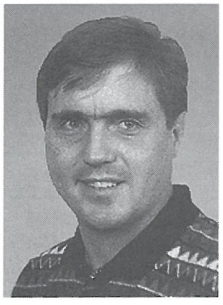
- Code Conformance Practice Note.
- Report on Mandatory Reporting.
- The use of the seal.
- Code enforcement and relationships with code authorities.

The committee was deeply shocked at the untimely death of member Neil Burgess. His work on the committee will be missed.

The committee welcomed D.G. Hodgkinson as a new member of the committee.

Support staff, as in the past, has provided enthusiastic and dedicated service, in numerous cases before and after normal working hours. The assistance of Margaret Little, Charlie Bouskill, and Dave Ennis allowed the committee to function in an effective, efficient manner. □

University Liaison Committee



P. Dalkie, Chair

Members

M. Alam
G. Drouin
G. Morris
K. Sydor
C.S. Roberts,
(Liaison Councillor)

The University Liaison Committee provides liaison between APEM Council and the University of Manitoba Faculty of Engineering.

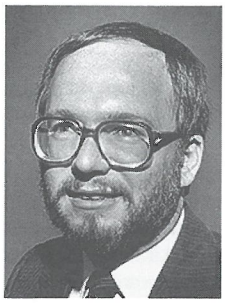
As part of its mandate, an annual meeting was arranged between the Faculty of Engineering, APEM Council, and members of this committee. The topic of this year's meeting was "Continued Professional Development: Planning the Partnership". Guest speakers for the event were Doug Kramble (Chair of the Professional Development Committee), Glenn Morris (Associate Dean), and Len Dacombe (Director, Data Networking & Software, TR Labs). The importance of continuing education, as well as new ways of providing continuing education to professionals off-campus, were discussed.

The University Liaison Committee continued to follow the funding problems of the Donald W. Craik Engineering Library, and forwarded recommendations to Council on how APEM can be of assistance.

Other activities of the Liaison Committee included a funding-policy review for the annual Engineering Student Dinner, in order to sustain this event for years to come.

I would like to thank Shirley Matile of APEM and the other members of the committee for their efforts, and look forward to their support in the coming year. □

Registration Board



K.J.T. Kjartanson, Chair

Members

W.C. Brisbin
W.R. Newton
D.G. Osman
D.I Waldman
A.H. Permut,
(Liaison Councillor)

The Registration Board has continued with a very active schedule during 1995-96. During this time period, the Board held 12 regular meetings.

Fine-tuning of the registration process has continued, with ongoing communication among the Registration Board, the Board of Examiners, the Experience Review Board and Council. The Board has reviewed procedures and, where appropriate, has either recommended changes to Council or recommended different protocols be considered for implementation. In this regard, changes were made to the Manual of Admissions and the Registration Board Terms of Reference.

The Board has expressed some concern about some of the review procedures followed by the Board of Examiners. Concern has also been expressed respecting current registration procedures under the Mobility Agreement. Plans are underway to develop an Operations Manual to assist the Registration Board in carrying out its duties.

The Registration Board continued to carry out its main function: the review of recommendations of the Board of Examiners and the Experience Review Board. During this past year 87 EITs were enrolled, 75 members were registered under the Mobility Agreement, 26 members were registered by transfer, 60 licenses were issued for practice, 14 reinstatements were considered and six Board of Examiners' recommendations were verified.

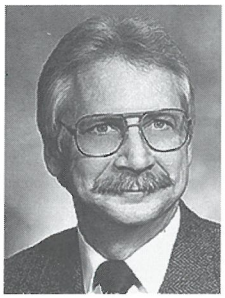
In addition to its baseline work, the Registration Board also reviewed the NAFTA Agreement and made recommendations to Council, made recommendations respecting the Revised Act, considered CCPE and CEQB documentation, and handled other miscellaneous duties.

The Registration Board finalized an appeal from the previous year, dealt with another appeal and has another appeal under consideration, to be dealt with in October, 1996.

This past year has seen some major changes in the membership of the Board. Walter Pawlikewich, P.Eng., previous Chair of the Board,

Continued on page 12

Nominating Committee



Members

D.G. Chapman
D.J. Kramble
J. Lucas
W.M.A. McDonald
D.L. Olischefski
G.A. Pozzobon
C.S. Roberts
B. Stimpson
H.M. Turanli

***D.G. Osman,** Chair*

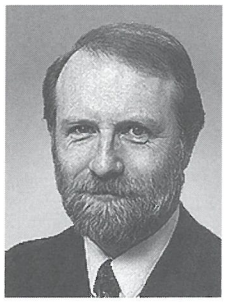
The Nominating Committee is charged with the responsibility of developing and nominating a slate of candidates for election to Council. The committee nominated seven candidates for the five positions which were to become available as the terms of some current councillors expired. The level of interest in the well-being of the Association, by the candidates nominated is an indication of the effectiveness of the Association itself.

There is a provision for the nomination of candidates for the vacant positions on Council from the membership. This is welcomed, and is healthy to see occur, as there are members who have a desire to serve the Association, and thereby the public, who are not always known to those on the Nominating Committee.

This year, the start of the process was delayed to some degree by the move into the new premises. The effect of the delay was negligible as the members of the committee accepted their tasks willingly and accomplished them expeditiously. Their tasks were made less challenging than might have been, when those approached for nomination readily accepted.

I would like to thank the committee members for their involvement and contribution to the process. I would also like to thank Joan McKinley for the contribution of her experience, which helped guide us through the process. Appreciation for the willingness of those who have agreed to let their names stand for a position on our Council is hereby acknowledged. Council, the membership, and the public will be the benefactors of their contribution to the Association. The experience garnered while on Council will prove to be valuable and rewarding to those who are elected. □

Board of Examiners



Members

K.M. Adam
C.D. Anderson
S. Balakrishnan
E. Bridges
D.H. Burn
A.D. Gerrard
D.S. Jayas
W.M. Kinsner
R.W. Menzies
D. Polyzois
B. Stimpson
K.N. Tandon
M. Yunik
J.M. Symonds,
(Liaison Councillor)

***D.G. Chapman,** Chair*

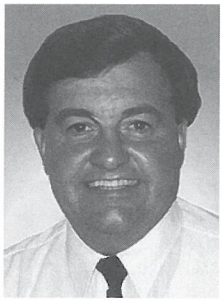
The Board of Examiners assesses the academic credentials of all applicants who are not graduates of programs accredited by the Canadian Engineering Accreditation Board (CEAB), with a view to ensuring that everyone registered with this Association has attained a level of education at least equivalent to that attained by graduates of CEAB-accredited programs.

The Board evaluates the degrees, transcripts, syllabi and any other information provided by the applicants to determine whether, and which, technical engineering examinations should be assigned. The examinations are carefully selected from 11 syllabi prepared by the Canadian Engineering Qualifications Board (CEQB), which is a standing Board of the Canadian Council of Professional Engineers (CCPE). Joan McKinley, the Secretary to the Board, then arranges for the preparation of examination papers and organizes the examination sessions. The Board monitors the progress of candidates who have been assigned examinations, evaluating and re-evaluating performance, as required, until it is satisfied that they are academically qualified for registration. The Board is also responsible for establishing the date of academic qualification, following which the engineering work experience may be considered.

During the past year, the academic credentials of 23 new applicants were assessed, and four assessments were reviewed and either modified or confirmed. In addition, four thesis topics were approved, five candidates were allowed to substitute courses for examinations, and 14 candidates were declared academically qualified. Two candidates appealed the decision of the Board of Examiners to the Registration Board: one with respect to the date of academic qualification (resolved in favour of the applicant) and one with respect to the assessment itself (which led to the development of a new syllabus). The Board also considered an appeal regarding examination deadlines – following which a policy was developed and implemented – and two appeals against examination content which, as of August, 1996, were still under investigation. Finally, the Board will shortly be addressing the NAFTA, and its impact on the assessment process.

I wish to thank the members of the Board for their contributions to both the assessment and the policy-development processes; and I particularly wish to thank APEM staff member Joan McKinley, who spends much of her time explaining the examination process to potential applicants and serving the Board as both secretary and administrator of the examination program. □

Enforcement Committee



Members

R. Kennedy
J. Macdonald
R.J. Partridge
N.B. Ulyatt
M.G. Britton,
(Liaison Councillor)
D.G. Osman,
(Liaison Councillor)

***B.R. King,** Chair*

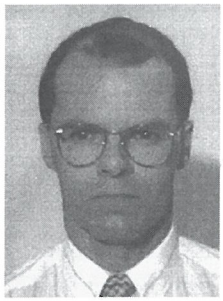
The Enforcement Committee's mission is to ensure that those practising, or professing to practise, engineering work are properly registered. In 1995, the committee established a set of five categories, from monitoring drawings and submissions to monitoring employment advertisements, to ensure that engineering functions require applicants to be registered. A detailed flow-chart and action-table were developed by the Committee for each category and forwarded to Council for approval.

The concepts of enforcement, including the prioritized categories from the Enforcement Committee, were discussed in detail at the Long-Range APEM Planning Meeting. As a result of these discussions and direction from Council, the Committee's top priority will be the development of an action plan to address the concept of Awareness of the Engineering Profession. It is felt that the need to have people aware of the Engineering Profession, specifically the legal aspects with regard to the practice of engineering, was a priority.

As a first step in addressing this item, the Enforcement Committee will be conducting a strategic planning and action session in September with representation from other committees.

The Committee would like to thank all members of APEM who have assisted in achieving our mission. A special thanks to Dave Ennis and the staff of APEM who have helped the Committee in pursuing our enforcement initiatives. Engineers can help the Committee by notifying any member of the Committee if they have any concerns or suggestions, or know of any potential need for enforcement. □

Research and Development Committee



J.C. Bégin, Chair

Members

K.M. Blanquiere
D.G. Chapman
L. Dacombe
D.J. Fedirchuk
R.J. Hamlin
D. Knells
E.E. Lach
D.M. McCartney
D.G. Osman
A.J. Pollard
E.A. Speers
D.R. Strang
K.N. Tandon
J.B. Thorsteinsson
M.G. Britton, *(Liaison Councillor)*

The Research and Development (R&D) Committee has a mandate to keep Council and members informed of scientific research, technological development and innovation in Manitoba and Canada, and to identify the implications of these activities on Association members and the public.

The R&D Committee met eight times during the year. It continued to focus its efforts on organizing luncheon meetings with topics related to research and development, either in Manitoba or having a direct impact on the engineering profession in Manitoba. Topics of interest to a broad cross-section of the Association membership were selected. All presentations are video-taped, and copies of the tapes in VHS format are available at the Association office for loan to members. Reports on R&D luncheons also appear regularly in the Manitoba Professional Engineer.

During the year, the Committee hosted six luncheon presentations and co-sponsored two others, on the following topics:

- Refurbishment of Spacer-Dampers on Manitoba's HVDC Transmission Line, by J.C. Bégin.
- The Effects of Wheeling and Deregulation on Electric Utilities, with two keynote speakers and a panel discussion.
- The Science and Technology Centre of Ukraine – Opportunities for Collaborative R&D, by E.A. Speers.
- MRNET – The Manitoba Research Network, by Dr. Clint Gibbler.
- The Life Cycle of an Idea, by John Cherry of the Canadian Industrial Innovation Centre.
- National Energy Codes Update – co-sponsored with the Canadian Construction Research Board.
- Electric Vehicles – co-sponsored with local chapters of IEEE and SAE.

The following luncheon presentations are in various stages of organizational development by the Committee for next year:

- Solid-Waste Management – Recycled-Materials Processing
- The Sustainable Development Act – Manitoba Ramifications
- Real-Time Digital Simulator – Manitoba Technology
- Experiences With the Distance-Education Program

The Committee is still deliberating on a series of articles, for publication in the MPE under the heading "The Life-Cycle of an Idea", that will highlight innovation and entrepreneurship in Manitoba. The Committee may elect to devote more of its resources to this project and reduce the number of luncheon presentations hosted. The Committee still has the goal of organizing a tour of a research-and-development facility on an annual basis.

I would like to thank the committee members for their enthusiasm and their valued and varied contributions to the work of the Committee during the past year. On behalf of the Committee, I would also like to thank Kyle Blaquiere, EIT, for his services as recording secretary, and to extend sincere thanks to Dave Ennis, Margaret Little, and other APEM staff for all their support during the year. □

Annual General Meeting Committee



K.J. Puckall, Chair

Members

B.C. Jorowski
R.R. McKibbon
G.A. Pozzobon
B.R. St. Amant

The Annual General Meeting (AGM) Committee has one of the most challenging roles to play in the APEM. Through the forum of the AGM, the Committee is responsible for providing the membership with the opportunity to contribute feedback on the many major issues being dealt with by the APEM. Another responsibility of the Committee is to continually develop the format of the AGM, and to encourage participation of the membership in the activities of the APEM. Because of our single-event focus, the Committee is probably one of the few committees open to direct criticism of its actions. Fortunately, most of it is constructive.

Building on the experience of past years, the Committee, this year, has chosen to include an information session in the business meeting, followed by an evening dinner/dance. An early-bird draw will be held to promote the sale of banquet tickets. The Committee is always interested in new ideas and we would like to hear yours.

Our immense thanks to Dave Ennis and Joan McKinley for their patience, help, wisdom, and senses of humour in keeping us moving and on schedule. □

Discipline Committee



R.E. Scouten, Chair

Members

K.A. Buhr
N.P. Feschuk
R.A. Kane
D.M. Kilgour
B.R. King
A.M. Lohse
W.R. McQuade
G.A. Morris
D.N. Spangelo
J.M. Symonds

The Discipline Committee met once this year to review its standards and procedures. The makeup of the Committee was discussed and a need for further appointments was identified. Although no cases were brought before the Committee this year, it was decided to continue with regular meetings for purposes of general discussion of the Committee's role.

The Investigation Committee continues to carry out the major role in disciplinary cases that can be treated in an informal way. The fact that no cases were serious enough to lay formal charges under the Discipline By-law is an indication of the profession's ability to govern itself with confidence that its members will continue to practise under the highest standards of self-discipline.

My thanks to the Committee members who have agreed to serve at formal hearings if required. □

Public Awareness Committee



Members

R. Bernhardt
D. Dankewich
A.M. Gole
A. Pollard
D.C.H. Prowse
B. Thomson,
(Liaison Councillor)

***C.A. Nieuwenburg,** Chair*

The PA Committee's mandate is to increase public awareness of the important role that the engineering profession fills in our society. This is done in order to ensure support for APEM's legislated mandate to govern and regulate the practice of engineering, and in order to encourage students to consider engineering as their chosen profession. These objectives are achieved through a number of initiatives, such as participation in and/or sponsorship of events organized by other associations or interest groups, placing advertisements in newspapers to announce the APEM President or award winners, preparing or obtaining general PA literature for use by our members when visiting schools, or organizing our own events to attract an interest in, and develop an understanding of, the profession.

The PA Committee events that typically attract the most public attention are those organized for National Engineering Week, which takes place each year in the first full week of March. The site for this year's events was the St. Vital Mall, where volunteer EITs and professional engineers were on hand to answer questions about the engineering profession or provide copies of engineering-related pamphlets and brochures. Shoppers were also invited to attempt to build, using drinking straws and masking tape, as tall a tower as was possible that could also support a tennis ball. This event attracted both young and old, males and females, professionals and amateurs, with at least ten towers on the go at any one time.

Without a doubt, though, the highlight of the week was the spaghetti-bridge-building competition, which was once again organized and conducted by sub-committee members Shane Mailey, Glenn Penner and APEM Councillor Don Spangelo. This event involves students designing and constructing ahead of time a bridge made of a finite amount of spaghetti and glue, and then transporting their masterpiece to the mall for load-testing, which is done in a very dramatic fashion. The competition has become so popular that Shane, Glenn and Don have taken their act on the road to various schools in the city, where they conduct classroom or school-wide competitions.

Also part of the National Engineering Week initiative was the preparation and posting of a World Wide Web Page, which was arranged by Ani Gole and several University of Manitoba engineering students. The Web Page provided details of the events being planned and rules for the competitions.

Other events that the PA Committee either participated in or sponsored on your behalf were:

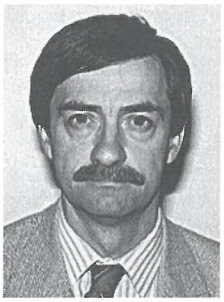
- The Manitoba Schools Science Symposium, where, in addition to sponsoring the organizing committee, ten APEM members judged over 100 projects and selected winners for APEM's $500 engineering scholarship and three Mini-U enrollments.
- The University of Manitoba Handbook, which, without advertising revenue, would no longer be published.
- The Fort Garry School Division Engineering Awareness Program, which involves a number of Grade 4-6 teachers and students touring the Faculty of Engineering at the University of Manitoba.
- The Churchill High School Electrathon Project, for three male and three female Grade 12 students, to design and construct a vehicle as part of a nation-wide competition.
- The Girls Exploring Trades and Technology camp, which was co-sponsored by the Women in Engineering Advisory Committee, and which is designed to keep Grade 7 and 8 girls interested in science and mathematics.
- The Department of Education's Special Area Groups Conference, at which committee member Richard Bernhardt made a presentation to interested grade-school teachers about the engineering profession.

In addition to the above, the PA committee arranged for the manufacture of lapel pins, in the design of the APEM logo, to commemorate APEM's 75th anniversary. The pins were handed out at the 1995 Annual General Meeting, and have also been made available to all committee members, to recognize the volunteer work that they do.

Membership activity on the PA Committee during the year saw Dan Prowse stepping down from the Chair position, while Jim Linnen, Bill Brant and Garry Payne all left the committee. Joining the committee was EIT Dan Dankewich. Meanwhile, a large subcommittee has been struck to plan and arrange the events for National Engineering Week '97, which is going to be our biggest endeavour ever. Anyone wishing to help with the organizing or to participate in any of the events is welcome to call Shirley Matile at the Association office, or myself at 474-3178.

Continued on page 11

Salary Research Committee



Members

W. Czyrnyj
L.J. Kuczek
I. Mikawoz
G.R. Norberg
S.J. Ormiston
W.B. Todd
P. Washchyshyn,
(Liaison Councillor)

***E.G. Parker,** Chair*

To satisfy our objective of providing salary information for use by the public and Association members, the Salary Research Committee conducted its annual employee and employer salary survey this spring. The results were published and distributed with the July mailing of the Manitoba Professional Engineer. We were pleased with the large number of positive comments received in the written comments section of the survey.

Last year we had introduced a salary comparison to the salary information available from the Professional Engineers of Ontario. This year we have added the salary information available from the Association of Professional Engineers of Saskatchewan to our report. It was notable that, while we used 1995 salaries from the other provinces and April 1996 information from Manitoba, our member salaries are, in fact, lower in all bands compared to both Ontario and Saskatchewan (with the exception of the entry-level category in Saskatchewan).

The tabulated results for the year ending March 31, 1996, show the average salary increase was 4.35% with 40% of respondents reporting no increase or decrease in salary. The mean salary of respondents was $55,350. The best-fit curve for mean salary versus APEM points indicated MEAN ANNUAL SALARY = 13957 + 92.28P. This reflects approximately $100 per point of job responsibility. In our report we also noted that when comparing salary to years from graduation, statistically, we earn $1276 for every year of experience from graduation.

Thank you to those who completed their 1996 salary survey questionnaires and to the employers who provided their corporate salary data to the committee. Many thanks to the committee members for their efforts this year, and to Dave Ennis for his continued support. A special thank-you to Joan McKinley for her assistance in making our survey a success. □

Sports Committee



Members

D. Bell
J. Lavergne
D. Lecuyer
K. Miller
J. Paterson
M. Vanderpont

***B.W. Biglow,** Chair*

This past year the Sports Committee maintained the traditional spring golf tournament and added a fall tournament as well. Both tournaments were very successful, and by the time you read this, some of you may have participated in the second annual fall golf tournament.

The "Texas Scramble" format has proved to be quite popular. (There must be more casual, fun-loving engineers than serious, competitive, go-for-the-green types?)

We have a new supply of APEM-logo golf shirts and sweat shirts; drop in to the office and pick up yours (at cost) while the selection is still good.

APEM was again represented by three relay teams of engineers in the annual Manitoba Marathon. This was our fifth straight year of running and the engineers recorded some excellent times. Our top team finished 13th overall, running the 26.2 miles in 3 hours, 10 minutes, 50 seconds. (average speed = 8.24 m.p.h.) Congratulations!

Many thanks to the dedicated Sports Committee members who have all sacrificed many hours to ensure the success of the events and welcome to our newest committee member, Jeannie Paterson. □

Women in Engineering Advisory Committee



Members

C. Geddert
W.J. Hamlin
K. Koshelanyk
I. Mikawoz
M. O'Laughlin
K. Pratt
E. Swatek
A.H. Permut,
(Liaison Councillor)

***K.F. Olischefski,** Chair*

Recent statistics forecast a shortage of qualified professional engineers that would limit our ability to meet the needs of the public. Diversification has the potential to increase our numbers by at least two-fold. Concentrating on the largest under-represented minority group in engineering, WEAC's mandate is to develop and implement strategies to attract and retain women in the engineering profession.

Ongoing activities have included timely responses to relevant issues such as review of funding requests for women in engineering initiatives, celebrating achievements of outstanding women engineers, and protesting inappropriate articles appearing in trade magazines. WEAC has had ongoing interaction with other APEM committees as well as outside committees/organizations having similar goals, such as the University of Manitoba Dean's Task Force on Gender Equity, CCPE's Presidential Committee on Gender Equity, and most recently CCWEST (Canadian Coalition for Women in Engineering, Science, and Technology). Membership with CCWEST gives WEAC a national voice for issues relating to women in engineering and also serves as a resource. Prior to addressing any major issues or initiatives, WEAC solicits feedback from CCWEST to quickly and effectively ascertain if similar work has been done elsewhere that can be drawn upon.

Upon WEAC's recommendations, APEM provided funding to both the October, 1995 Capitalizing on Today's Challenges conference, which several WEAC members participated in organizing, and the Manitoba GETT (Girls Exploring Trades and Technology) Camp.

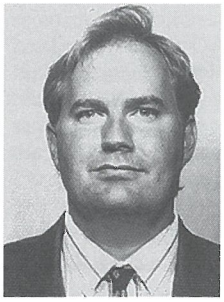
A sub-committee has been formed for the creation of a *Flexible Workplace Document*. This document will serve as a reference to assist professional engineers and their employers in choosing flexible workplace options for balancing career and family. Watch for it next spring.

WEAC members reviewed the proposed Engineering and Geoscientific Professions Act from two viewpoints, as registered professional engineers and as WEAC members. Kathy Pratt's thoroughness in documenting her review and participation at the information evening is greatly appreciated.

The chair of this committee met with the Honourable James E. Downey, Minister of Industry, Trade and Tourism to familiarize him with WEAC, our mandate, initiatives, and terms of reference. Mr. Downey feels that there may be a few areas where his office can cooperate to promote the objectives and increase the visibility of WEAC. We look forward to continued efforts in this direction.

Continued on page 13

Publication Committee



Members

S.C. Alford
A.E. Ball
J.W. Bogan
B.A.K. Danielson
B.A. Dobran
V.L. Dutton
L.Y. Ganetsky
J. Lucas
W.G. McKay
H.S. Zbigniewicz
B. Thomson,
(Liaison Councillor)

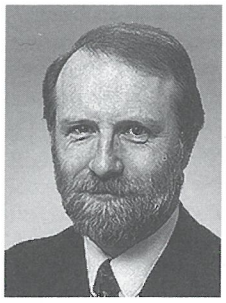
***C.P. Gray,** Chair*

The Publication Committee consists of the same faithful members as last year, with the recent addition of Steve Alford. There was only one casualty to our committee: Harry Lobo, who moved to Calgary for employment opportunities. As well, Councillor Bonnie Thomson became the Publication Committee Liaison Councillor and is active in writing articles for the MPE. Jerry Bogan has temporarily stepped down as the Chair until the successful completion of the Main Street Bridge project. Personally, I am looking forward to Jerry's speedy return as Chair, as I'm finding his shoes are big ones to fill. In Jerry's temporary absence, thankfully, no scandalous or embarrassing articles or blundering errors were printed during the last year (at least none that has come to our attention). On that note, Council has requested an Editorial Policy from the Publication Committee, which is nearly complete.

The Committee's goal for the next year is basically the same as in past years – namely, to produce six professional and informative publications for the APEM members. Some APEM members have told us that the MPE is too dry and we will try in future publications to strike a balance between being a professional publication and having humorous and human-interest articles. As well, our committee is under-represented by the construction and production industries and hopefully we can better represent their interests and perhaps recruit new committee members in those fields. Also, we intend to have more articles from outside the Winnipeg region. In short, we hope to broaden our scope somewhat.

Although the work to publish the MPE is, for the most part, silent work, the MPE is appreciated by the members for its information and interesting articles, and hopefully provides amusement to the readers. The labour that goes into the making of the MPE does not go unnoticed or unappreciated. To the other committee members, I thank you for making our professional lives richer. Finally, I would like to thank Shirley Matile and Lorraine Dupas from the APEM office who pulled things together and made the Committee's task easier. □

Awards Committee



Members

C.E. Anderson
M.G. Britton
L.R. Ferchoff
N.P. Feschuk
N. Maksymiw
D.G. Osman
C.V. Thio
P. Washchyshyn
D.A. Woodford

***D.G. Chapman,** Chair*

The Awards Committee is responsible for providing recommendations to Council for the recipients of APEM Awards, and for nominees for CCPE Awards.

There has been one candidate approved by Council for the 1996 CCPE Meritorious Service Award for Professional Service. Awards recipients have also been selected for the APEM Outstanding Service Awards and Honourary Life Membership and await Council's approval.

Work has commenced on the selection process for the APEM Merit Award and the Certificate of Engineering Achievement Award. These awards will be presented at the annual reception for Member Recognition during National Engineering Week in March, 1997.

The Awards Committee is always interested in receiving suggestions for possible award recipients. You are encouraged to nominate a colleague for any of the awards for which you feel the individual or the company (or agency) qualifies. There is a list of these candidates which needs to be maintained; please participate in this process.

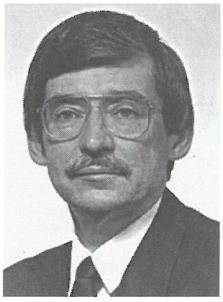
I would like to thank Joan McKinley and all the Awards Committee members for their efforts over the past 12 months. I would like to congratulate the professional engineers who have been found to be deserving of recommendation for these awards and wish them continued success in their future endeavours. The award winners are role models for all professional engineers and contribute significantly to the public image of engineers in Manitoba and Canada. □

Public Awareness Committee

(Cont'd from page 9)

And while we are emphasizing membership participation during National Engineering Week, other events take place throughout the year which could use your help. The administrators of the Innovators in the Schools Program at the Museum of Man and Nature (988-0699) await your' phone call. They will match you up with one of the many requests they receive from schools and special groups to have a professional engineer come out to their events. □

Experience Review Board



Members

D.T. Anderson
C.R. Bouskill
D.S. Jayas
B.R. King
J. Lucas
R.J. Partridge
A. Silk
P. Stanus
S.L. Ursel
E. Willms

***N.P. Feschuk,** Chair*

I would like to commend the committee members and staff for their dedication to the carrying out of the task of the committee. The work load has increased significantly over the last year. In addition, the committee has had numerous challenges with respect to candidates with qualifications requiring special consideration. Because of difficulties with assessing experience and/or language proficiency from documents provided by the applicants, the Board had to convene interviews with many applicants as well as arrange special testing.

I would like to thank the members of the Board; members who volunteered to serve on interview sub-committees; Shirley Matile, Director of Admissions; Dave Ennis, Executive Director and Registrar; and Donna Bilodeau, Admissions Co-ordinator for their contributions to the effective performance of the Experience Review Board in the past year. □

Safety & Engineering Practice Committee



Members

M.S. Anderson
D.E. Cross
A.O. Dyregrov
M.J. Frye
B.P. Gojkovic
R.E. Gottfred
P. Sims
J.V. Weiszmann
L.P. Williams
M.G. Britton,
(Liaison Councillor)

***F.A. Roberts,** Chair*

The Safety and Engineering Practice Committee (SEPC) serves to consider issues related to the design and construction of engineered works and to make specific recommendations to individuals as well as to the membership at large for the purpose of enhancing all aspects of engineering design. The committee has considered a wide range of issues during this past year, and a number of subcommittees have provided expertise in considering several very timely design issues.

Building Envelope Sub-Committee

The Building Envelope Sub-committee, under the chairmanship of Dr. M.J. Frye, has finally seen the fruition of its work with steps taken to implement a range of recommendations offered in the report.

The committee, which comprised members from the APEM Safety and Engineering Practice Committee, The Manitoba Association of Architects, and industry specialists studied structural and performance failures in the Building Envelope and produced a series of recommendations covering education, contractual, supervision, inspection, design, and maintenance issues. APEM had hoped to produce this as a joint report with the Manitoba Association of Architects. However, since agreement could not be reached, the report was published on behalf of APEM alone.

Manitoba Labour Inquiry into Health Sciences Scaffolding Failure

S.E.P.C. established a sub-committee to participate in the inquiry into a scaffolding failure, which resulted in damage to the Emergency Entrance of the Health Sciences Centre. APEM was requested by the Minister of Labour to address engineering issues related to the collapse.

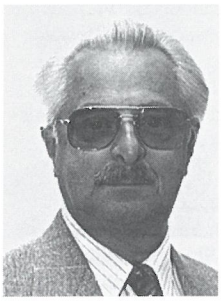
In response to the Minister's request, the Sub-Committee prepared a report, which was submitted to Council. The report outlines a series of recommendations on design, drawing, and inspection practices which should be followed to avoid similar problems. The most important step recommended is an inspection certification from the engineer whenever a scaffold is installed or re-installed.

Joint Failures in Hollowcore/Cast-in-Place Concrete Wall-to-Floor Joints

A sub-committee was struck to examine design and inspection issues relating to the installation and performance of floor-to-wall joints in building systems which utilize hollowcore floor slabs together with cast-in-place concrete walls.

While the committee has been considering one specific example, where problems have occurred, it would like to determine whether similar problems have occurred in other buildings of the same construction. The sub-committee would appreciate any information from members who have had experiences in design or reconstructive work on this type of structure. *Continued on page 12*

Consulting Engineers Committee



H.J. Haak, Chair

Members

I.R. Dewar
R.J. Houston
A.J. Kettler
W.J. McCulloch
R. Menon
D.G. Mulder
R.H. Payne
B.J. Rossen
T.L. Stratton
E. Weiszman
P. Washchyshyn, *(Liaison Councillor)*

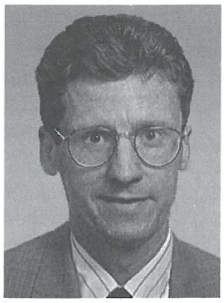
During the year, five meetings were held and the committee considered and dealt with a number of items.

A brief overview of some of the items follows:

- The Committee met with members of the Province of Manitoba Government Services in regards to the proposed inclusion of Engineering Services in the procurement Chapter of the Canadian Agreement on Internal Trade (A.I.T.). Discussions and review of the proposal took place and recommendations have been made.
- The review on the subject of value-based selection of Consulting Engineers continued. A sub-committee was established to study the merits of drafting an informational bulletin promoting the merits of value-based selection processes to fit the needs of the APEM. However, because of the time commitment required to develop a bulletin and the limited impact it likely would have in today's marketplace, it was decided that the value-based selection initiative be deferred for the time being.
- The Committee recommended that Council place an informational notice in the MPE in regards to a previously published letter from The Association of Manitoba Land Surveyors. This letter expressed concerns that engineers may be performing land surveying or engaging in the practise of land surveying. Council concurred with the Committee's recommendation.
- Appendix A of the Guide for the Engagement of a Consulting Engineer was updated for the current year.

The Chair thanks the Committee members for their valuable assistance and also Dave Ennis and the APEM staff. □

Legislation Committee



B.D. MacBride, Chair

Members

R.M. Gordon
D.W. Gunter
J.S. Hicks
R.A. Johnson
J. Lavergne
W.R. Newton
D.A. Ennis, *(APEM Staff)*
S.M. Matile, *(APEM Staff)*
D.N. Spangelo, *(Liaison Councillor)*

This was a busy year for the Committee. We finally got the draft Engineering and Geoscientific Professions Act beyond the Committee. The Draft Act was sent to a broad range of stakeholders and discussions were held with many of them. An informational meeting with APEM members was held on June 12, 1996, to allow member input to the proposed Act.

A lot of feedback was received and the Committee learned a great deal from the feedback. Thank you to all who have provided comments and suggestions. Changes to the draft are being made and will be forwarded to Council in September. After adjustments are incorporated, the Act will be processed through the Provincial Government, which has jurisdiction and control over any changes. The Minister of Labour has indicated that he will deal with the revisions as quickly as possible.

This is all carried out with cheerful participation by the committee members. Thanks to staff for their guidance and ideas on every issue. Dave Ennis, in particular, has put an extraordinary effort into the work. Thank you, also, to Bill Brisbin, who has contributed significantly to the process – particularly with respect to the inclusion of geoscientists in the Act.

The next big task for the committee will be to rewrite the By-laws to be consistent with the revised Act. Since it may be some time before a new Act is in place, the Committee will also have to keep up-dating the By-laws as the needs arise. □

Executive Director's Report

(Cont'd from page 5)

- A recommendation to the Manitoba Government that the National Energy Code for Buildings be incorporated into the Manitoba Building Code.
- Participation in an Environmental Issues Conference organized by the CCPE to focus on the qualifications of persons working in the environmental industry as it relates to the practice of engineering and the professional Acts in the provinces.
- Providing comment to the Canadian Council of Ministers of the Environment (CCME) on the Draft Environmental Framework Agreement to harmonize environmental standards.

As the President has reported, this year has been one of many challenges and changes. Without a dedicated staff and a committed cadre of elected and appointed volunteers the wheel of self-governance would grind to a halt. To each of them I express my sincere appreciation. □

Safety & Engineering Practice Committee

(Cont'd from page 11)

Practice Guidelines

An issue which has resurfaced many times in the history of our Association is the proposed use of Practice Guidelines. The full committee has been involved in discussions as to their relative merits and as to whether they would enhance the practice of Engineering. In particular, we are looking at the potential to improve understanding of expected levels of service between engineers, clients, and those with whom they interact.

These are the highlights of a number of issues which have come before the Safety and Engineering Practice Committee. As always, I invite any of our Association members who may become aware of potentially unsafe engineering practice to pass on such information to the committee, or to the Registrar. Inquiries or submissions will be dealt with in confidence, where requested.

On behalf of the committee, I wish to extend thanks to Mr. Dave Ennis for his tireless efforts in all our deliberations. I also wish to extend my personal thanks to every member of the Committee and Sub-Committees for their diligent service and helpful input. □

Registration Board Report

(Cont'd from page 6)

resigned for personal reasons and his valuable contribution of leading the Board during its formative times is recognized. Thank you Walter. New members Bill Brisbin, P.Eng., and the returning Don Osman, P.Eng., are welcomed.

The Chair wishes to thank the Board members for their dedication over the past year. Appreciation is also expressed to Shirley Matile, Donna Bilodeau and Dave Ennis for all the valuable support and assistance provided to the Board during 1995-96. □

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irector of Admissions' Report

(Cont'd from page 5)

procedures manual, which has, to date, been very much a moving target!)

In the spring, we were the respondents – for the second time – to a grievance to the Human Rights Commission. This second grievance was lodged by the same person who had lodged the first one – a person who had refused to accept this Association's assessment of his academic credentials, and for whom an extensive and expensive hearing had been conducted in 1992. The second complaint very much resembled the first, accusing this Association of discrimination on the basis of nationality. It has yet to be resolved. (The first grievance, following an exhaustive submission to the Commission and many months of investigation, argument and counter-argument, had eventually been dismissed.)

In the spring, also, this Association addressed the special circumstance of the fourth-year geological engineering class, which was unable, due to the weather, to attend Field School, a mandatory class for all geological engineering students. For these students, who were unable to graduate as scheduled, special consideration will be given regarding the commencement of their work expe-ence relative to graduation.

The APEM Professional Practice Seminar and Examination is now firmly established, three sessions having been conducted in 1995 and one in 1996. Attendance has been higher than anticipated, and everyone has passed the examination, so far! The format of a weekly session in the spring and a three-day weekend session in the fall seems to be working well, and will be continued, at least for the foreseeable future. Instructors Richard Swystun, Wells Peever and Adrian Battison continue to deliver first-class seminars, as do Kelly Dixon (who replaced Linda Kerr following her move to Kelowna last year), Dick Johnson, and Ron Britton (who filled in for Dick during the session this spring). Congratulations to all who took and passed the examination, and thank you Richard, Wells, Adrian, Kelly, Dick, and Ron!

Please remember that the Professional Practice Seminar is open – and recommended! – to all engineers. It is an excellent professional development activity!

Much time this year was spent in discussion, around the province, on the Engineering Profession Act – particularly with the geoscientific community. Although work has yet to commence on the development of parallel academic and work experience admissions criteria for the professions of geology, geophysics, and geochemistry, we were at least able to recruit a geoscientist to the Registration Board. Welcome aboard, Bill Brisbin!

At the national level, in addition to the national examination pilot project, the CEQB is working on a model for reducing the cost and delivery time for engineers wishing to obtain short-term temporary licenses to practise engineering in other provinces. It is also developing a guideline for the Associations for monitoring the continuing competence of practising engineers. In addition, the engineering agreement developed as an annex to the NAFTA has been signed by CCPE. The terms negotiated by the CCPE on behalf of the profession in Canada, if adopted by APEM, will significantly change the admissions process for engineers holding degrees from the U.S. and from the countries party to the Washington Accord. These issues are currently under consideration by APEM's Board of Examiners and Registration Board.

The Admissions process and procedures at APEM continue to evolve. My thanks to admissions staff members Donna Bilodeau, Lorraine Dupas, and Joan McKinley for your continued hard work and support. □

Women in Engineering Advisory Committee

(Cont'd from page 10)

On WEAC's behalf, Meghan O'Laughlin authored the first of a series of articles entitled "Words for Everyone" for the August MPE. These progressive articles discuss gender-neutral language and provide alternative words and phrases as "food for thought".

Last year's Women's Engineering Network topics were *Personal Safety* presented by a Winnipeg Police Constable; *Financial Planning: "Making Your Money Work For You"* presented by the Women's Directorate; and the *Second Annual WEN Golf Classic* – a great opportunity for beginner golfers to tackle the sport without pressure or embarrassment.

All committee members are thanked for their dedication and hard work. WEAC also appreciates the valuable assistance provided by Lorraine Dupas and Shirley Matile. □

COMMITTEE REPORTS COMMITTEE REPORTS COMMITTEE REPORTS COMMITTEE REPORTS

WHATSITS WANTED!

Do you have an interesting whatsit, thingamabob or widget? If so, the Public Awareness Committee would like to borrow it. The Committee is "gearing up" for our National Engineering Week display March 5-9, 1997 at the Polo Park Shopping Centre. One of the displays will contain a collection of unusual or curious items related to engineering so that people can guess "whatsit"!

Other events include Straw-Tower Building, a Spaghetti Bridge Contest, an Eggs-traordinary Obstacle Course and a Whisser Contest – all run by VOLUNTEERS.

If you would like to lend us your "whatsit", or if you would like to volunteer to assist with any of the Association's National Engineering Week activities, please contact Caroline Nieuwenburg at Manitoba Hydro 474-3178, or Shirley Matile at APEM 474-2736.

Capturing the Changing Face of the Profession

APEM has teamed up with the other provincial/territorial associations, and the national professional body, the Canadian Council of Professional Engineers, to conduct a survey of Canadian engineers and geoscientists.

In the course of recent discussions aimed at drafting a vision statement for the engineering profession, leadership and professionalism were emphasized as key to the future. However, to build on current strengths, we first must have a clear understanding of ourselves. With the most recent national statistics on engineers and the practice of engineering dating back to 1991, it is necessary to update membership information data to reflect the new realities professionals are facing.

The revised questionnaire is ready and we are now counting on membership participation. Your individual participation is critical to the profession's relevance in matters of local, national and international scope. The higher the response rate, the more accurate and meaningful the survey conclusions.

Results of the survey will provide comprehensive data on the skills, types of employment and demographics specific to Canadian engineers. These data will be used to identify and address the changing needs of the profession.

Please take a few minutes to complete and return your copy of the 1997 Survey which you will receive early next year. All information will be treated in strict confidence and results published in aggregate form only. Results of the Survey are expected to be available early in 1998. A summary will be published in the Manitoba Professional Engineer, and a more detailed report made available through the Association office. □

Council Report

Tuesday, July 9, 1996

By: C.P. Gray, P.Eng.

AT WHICH COUNCIL EXPECTS GREATER COSTS FOR 1997

The Council meeting began with a new twist to shorten the length of the meeting, which usually lasts about five hours. Cathy Stewart, APEM President, introduced the agenda with "Consent Agenda Items" for nine of the 23 agenda items. The "Consent Agenda Items", included in pre - meeting information package,are intended to be introduced, accepted, and passed without any discussion (unless a Councillor has an objection and wants an agenda item included for discussion). Although this process will not likely be implemented by the legal community, this MPE reporter had no objections.

Dave Ennis, Executive Director, gave a detailed account of APEM's present financial situation along with a budget projection for 1997. It is anticipated the 1997 budget costs will increase, primarily because of administration and enforcement costs associated with the proposed "Mandatory Reporting of Professional Development". As a result, annual fees could increase or existing APEM services could be reduced.

Council agreed that "Mandatory Reporting of Professional Development" by all APEM members is necessary to ensure members are keeping up with technological changes. In addition, this initiative is consistent with other provincial associations' goals, the CCPE national objectives as well as other professional organizations who have self-regulating obligations. Council struggled with how to implement the "Mandatory Reporting of Professional Development" and finally resolved to implement a temporary change to the By-Laws (with discussions at the AGM followed by a mail-in vote) and later a change to The Engineering Act (which requires the approval of the Legislature). Under changes to the By-Laws, members who do not report their professional development would be subject to the disciplinary process. Council expects that this could be an inordinate burden to the Discipline Committee as well as a delay in justice. A change to The Engineering Act would alleviate the need for the disciplinary process.

Discussions with the Manitoba Association of Architects (MAA) regarding engineers' role in building designs (in particular Part 3 of the National Building Code) are ongoing, but little progress has been made since the last Council meeting. Also, meetings with the Certified Technician and Technologists Association of Manitoba Inc. (CTTAM) are on-going with further headway being made regarding the definition of the CTTAM members' roles.

There is, at present, a proposal for an "Agreement on Internal Trade" for a wide variety of products and services, including engineering services, between provincial governments. Council members had reservations that this proposal may encourage the selection of engineering consulting services solely on the basis of cost rather than quality, since this legislation effectively allows an engineering consultant in one part of the country to do business in another part of the country without having any local knowledge or experience. Council struggled with the dilemma of acting on behalf of the Manitoba engineering community or not getting involved with this matter, since APEM's primary objective is to protect the public's interest and not to determine if out-of-province engineers have sufficient experience. Council decided to send a letter to the Manitoba Government Services Department expressing its concerns about the potential of using under-qualified engineering consultants.

Council approved the recommendations (with some minor editing) from the Safety Committee on "Guidelines for Professional Engineers for the Design of Temporary Structures". These guideline requirements came as a result of the recent scaffolding collapse at the Health Sciences Centre. The guidelines are to be published in the MPE.

Council appointed Kelly Kjartanson Chair of the Registration Board and Don Osman and Bill Brisbin as members of the Registration Board.

Should Engineers Make Public Statements?

By: C.P. Gray, P.Eng.

There was a recent article in the *Winnipeg Free Press* by a new APEM member criticizing the admission standards, in particular the restrictions placed on engineers who have immigrated to Manitoba from another country. The author criticized the Association for being overly restrictive in accepting his engineering experience and qualifications from his homeland. On first reading the article, I was bothered that a fellow engineer would criticize APEM in the public press. However, perhaps I should have kept an open mind to his plight and his right to freedom of speech. Perhaps the engineer was frustrated with the slow progress or perceived he was an outsider being stonewalled by the system and felt that writing to the public press was his only avenue to change the system. For that matter, does any engineer have a right to criticize APEM in the press?

The Engineering Code of Ethics states *"The professional engineer shall uphold and enhance the honour, integrity and dignity of the engineering profession"*. From these guidelines, which we are obliged to follow, I would say yes, provided the comments or statements are truthful and do not damage the integrity of the profession. Not damaging the integrity of APEM while making public criticism about the Association would require greater diplomatic skills than I, at least, have. In addition, public criticism is generally not very constructive, since the communication is a one-way dialogue and legitimate solutions cannot easily be worked through. I'm a firm believer in Total Quality Management which professes that the owner of a problem has the greatest incentive, and should be empowered to correct it. Without the problem owner, it is more difficult to solve the problem. Nevertheless, it is still possible if the people at the helm have a thorough understanding of the problem. However, there is, an obligation for engineers to make constructive criticism of the Association when something needs to be changed, provided that the criticism is given at a meaningful forum and its objective is to sincerely develop APEM into a better or more updated institution.

This engineer's public statement reflects poorly upon the engineering profession, both in the perception that APEM did not deal with him fairly, and in the perception that members have to go outside the profession to get justice. Also, it makes engineers, including this new member, appear unprofessional. Unfortunately, it gives the public a snapshot of the engineering profession which I believe was, in this case, inaccurate, unbalanced, and un-representative of the facts. Also, once a public statement is made by a member, APEM can only react to comments and cannot fairly defend itself from the criticism, since not all readers will read the response. I think these are good reasons why engineers should refrain from making negative statements in the public press.

Nevertheless, criticism in the right forum is not only constructive, but necessary in order to adapt. This, I believe, can most efficiently and constructively be done from within the APEM framework, by joining the appropriate committee, voicing one's concerns at the Annual General Meeting, or writing a formal complaint to Council.

Although members don't generally go to the extreme of writing to the public press, there probably are other frustrated members with genuine gripes about APEM who are not willing to step forward, perhaps because of concern about the repercussions, of feeling that nothing will come of their criticism, or of being just too busy with other commitments. Perhaps there should be an "anonymous suggestions box" for APEM. At any rate, if a member is not willing to voice his or her concerns, there is no room for criticism of those volunteering their time and energy.

Unfortunately, there is an incorrect perception by some members that APEM is a closed shop for only a select few. It has, however, been my personal experience that being involved in APEM is as simple as picking up the phone and becoming a part of the APEM team. So I call upon anyone who is interested in being involved to contact the APEM office or any committee member to discuss becoming an active participant. Personally, I have found the rewards greatly outweigh the demands. As a result of joining the Publication Committee, I've met countless people, made several friendships, and grown professionally. □

A Vision for the Canadian Engineering Profession

Canadian engineers provide leadership to advance the quality of life through the creative, responsible and progressive application of engineering principles in a global context.

Supporting Narrative for a Vision for the Canadian Engineering Profession

Providing leadership

Engineers will continue to play a vital leadership role in applying engineering principles to complex issues, developing quality solutions and coordinating the efforts of other professionals in an interdisciplinary context.

The profession will develop a strong leadership voice and speak out on engineering related regional, national and international issues. It will contribute to public understanding, foster an appreciation of the value of engineering and help society make quality decisions on engineering related matters.

Improving the quality of life

Protecting the public is a core element in the engineering profession's vision. By protecting the public's interest and working to ensure the safety and reliability of infrastructures, materials, products and processes, engineers contribute significantly to peace of mind and the overall quality of life.

In addition to the protection of the public, the engineering profession improves the quality of life through engineering projects. Ultimately, the engineering profession contributes to the betterment of the human condition, fosters prosperity and makes the world a better place in which to live.

Creative

Creativity, imagination and innovation are integral qualities of the engineering profession. Engineers are dreamers and creators. Once quality ideas are generated, engineering principles are applied to turn these creative ideas into a practical reality, but creativity is the start of the process.

Responsible

The engineering profession will play a stewardship role and strive to ensure the judicious and conscientious use of the earth's resources. Individual engineers are expected to conduct themselves in an ethical and honest manner. Responsibility is a key factor in the willingness of Governments to confer the privilege of self-governance on the engineering profession.

Progressive

As knowledge advances and society evolves, the engineering profession must continually and progressively adapt in order to retain its relevance and legitimacy. In addition, it must update its educational processes to ensure the effective preparation and continuing competence of members throughout their careers.

As a self-renewing and progressive profession, engineering maintains its relevance and legitimacy in the context of advances in the sciences, technological innovation, the emergence of new fields of practice, regulatory, economic, competitive and societal changes.

Application of engineering principles

Engineering involves the application of engineering principles. Engineering principles are broad based and draw from many different disciplines including: the natural sciences, mathematics, economics, the humanities and social sciences. Engineering principles reflect the fact that engineering is both a social process and a technical activity.

Global context

Although Canada has a small population, it is the fourth largest exporter of engineering services in the world. Engineers will continue to meet the challenges of a global economy. As a profession, we must go where the needs are and develop responsible solutions to global problems such as the environment, infrastructure and housing.

Fundamental Values for the Canadian Engineering Profession

- **Ethics, integrity, accountability and openness.**
- **Stewardship, protection of society, sustainable development and enhancement of the quality of life.**
- **Entrepreneurship, self initiative and value creation.**
- **Continuing competence through lifelong learning.**
- **Diversity and inclusiveness.**

Mandatory Reporting of Professional Development – Who Needs It?

By: C.P. Gray, P.Eng.

APEM Council is proposing "Mandatory Reporting of Professional Development" at the upcoming Annual General Meeting. I have some concerns about this initiative. Don't get me wrong, I am all for engineers continuing their professional development. In the words of a senior engineer I had the pleasure of meeting when I was starting my career, "there are no obsolete engineers, only bad ones" who don't take it upon themselves to keep up their training. He further told me that an engineering degree is a "learner's permit" for the wide and complex field of engineering and not a conclusion to an engineer's education.

First, let me state that my motives are not to put sand in the wheels of progress, as I do not personally feel threatened that this will adversely affect me, but rather to ask members if this is the right thing for us to do. I've heard it said that the reporting of professional development is consistent with other engineering associations' objectives. I think we can decide for ourselves what best meets our objectives and should not be so quick to implement what perhaps suits other associations' needs.

The vast majority of engineers are competent and perform their jobs well. For those engineers who need upgrading, need additional training, or are indeed incompetent, I suspect they probably know their own abilities and limitations better than anyone else and do not stamp or approve work with which they are not confident. For the rare engineer who performs poor-quality work and is a danger to the public, there are usually enough checks and balances in the present system (internal reviews, reviews by government agencies with qualified engineers, shop-drawing reviews by seasoned technicians and site inspections by other engineers) to spot problems. If there is a complaint about an engineer's work, the wheels of the system start the process of correcting the problem. This is not to say that catastrophic situations cannot still happen. For example, in the unfortunate circumstance of a building collapse, the problems usually have more to do with rushed work, overlooked details, and carelessness on the engineer's part than with an education deficiency or inexperience; and I am not convinced that reporting professional development will necessarily prevent a catastrophe. It seems to me that if the system we have in place is not broken, why fix it?

Can we be assured that APEM will not be liable for an incompetent engineer's work, since mandatory reporting would give the public the impression that APEM has an assurance of continuing development in its membership? The only safe option for APEM is not to ensure an engineer's competency, only his or her qualifications. Therefore, if APEM cannot give the public any assurance that this initiative will ensure that only competent engineers are practising, what is its purpose? Its purpose, therefore, can only be to ensure that engineers are continuing their professional development in one way or another. If a member has had no professional development in the last couple of years, he or she is not necessarily incompetent. Conversely, if an engineer takes a course, we cannot be sure that he/she is competent in that area of study. APEM can only confidently ensure the public that a member has an engineering degree (from an accredited program) or some equivalent education, has had technical training under the direct guidance of an engineer (for a minimum amount of time) and has maintained some level of professional development.

Continued on page 16

Mandatory Reporting – Who Needs it?

(Cont'd from page 15)

If a circumstance arises in a legal matter to determine whether a practising engineer is competent, it is the role of the courts to determine this (and in the eyes of the public, the courts would be more objective). As such, reporting on one's professional development will have no legal significance other than compliance with the obligations of reporting professional development.

I suspect that evaluation of the reports will probably place greater emphasis on formal training programs (without regard for the instructor or course content) and that little credence will be given to reading, talking to colleagues, co-workers and, dare I say, contractors. Administrators would naturally presume that formal courses have greater impact on an engineer's development, since they are quantifiable, than informally talking to an experienced engineer. I know, from personal experience, that this is not always the case. At any rate, how can you quantify professional development into a report? I presume the only logical way is by the number of courses taken and work experience (which is highly subjective as anyone who has recently looked at a resume under "duties" knows). From the engineer's perspective, formal classroom training may not be possible (e.g. for residents of rural Manitoba, where specific courses in the area of the engineer's expertise are not available, or where courses are only offered during working hours).

With regard to the logistics of implementing the "Mandatory Reporting of Professional Development", costs for enforcing these By-Law changes (and later the Engineering Profession Act changes) would probably increase annual dues. If one administrator could on average check 15 reports per day (this is a rough guess), and there are about 3000 registered members in Manitoba, that would be 200 working days. I can't see how an administrator can economically verify if an out-of-province engineer (who is an APEM member) has attended a course or seminar without accepting the information at face value. Take into account holidays, sick time, professional development time (sorry, couldn't resist), along with the extra tasks of filing and dealing with members who do not report, need reminder slips or who report poor professional development, and I would venture to say that there would be two full-time employees whose sole purpose would be to administer the "Mandatory Reporting of Professional Development". In addition, there may be additional legal costs for court challenges by members (incidentally, I am not so sure that de-registering a member for not reporting any progress in his/her development would stand up in court, since it would not necessarily prove that an engineer is incompetent). It was stated that a member would be de-registered for not reporting and not on the contents of the report, which would almost make it a hollow By-Law change (i.e. "I report that I have had no professional development this year"). So I think it safe to say that an evaluation of the report's contents would be required. This would lead to considerable strain on the Investigation, Discipline and Enforcement Committees, at least until the changes to the Engineering Profession Act come into effect and presumably would still require some further evaluation and investigation by a committee (do I sense a new committee in the making?). The slowness and lack of enforcement that would come with dealing with all the members who either do not comply or report poorly would not do justice to the spirit of the "professional development" intent.

Although it seems like a good idea on the surface, I believe the mandatory reporting of professional development is not necessary, since most members are competent and have a vested interest in continuing their professional development. The present system of checks and balances for incompetent engineers (and those who are a danger to the public) is effective. Mandatory reporting will be expensive and difficult to enforce and will probably be of limited value, since a report (written by the engineer himself or herself) cannot accurately gauge an engineer's true professional development. I do, however, agree with the initiative which would oblige engineers to have professional development time and encourage employers to pay for training costs (both in course costs and lost productivity). The key words here are oblige and encourage – not mandate and enforce. □

Coming Events

TUNS

Indoor Air Quality – Institutional and Commercial Buildings

8:30 a.m.- 4:30 p.m., October 10, 1996
Delta Winnipeg, Winnipeg, Manitoba
Contact: Cecille Sepidoza
Phone: 1-800-565-1179 or (902) 420-7818

Indoor Air Quality – Testing Techniques

8:00 a.m.- 4:30 p.m., October 11, 1996
Delta Winnipeg, Winnipeg, Manitoba
Contact: Cecille Sepidoza
Phone: 1-800-565-1179 or (902) 420-7818

Project Management Seminar

October 24-25, 1996
Crowne Plaza, Winnipeg, Manitoba
Phone: 1-800-565-1179 or (902) 420-7818

CSCE/CISC

Steel Structures for 1996

1 1/2 day seminar on minimizing cost with examples from the new 6th Edition of CISC's Handbook of Steel Construction

October 24-25, 1996, Winnipeg, Manitoba

For further information, contact:
Ellowyn Thornton-Trump
Phone: (204) 956-0980 Fax: (204) 957-5389;
Shirley Stewart
Phone: (506) 453-5000 Fax: (506) 453-4819,
e-mail sdms@unb.ca

Western Canada Water and Wastewater Association

The Manitoba Section of the Western Canada Section of the AWWA is presenting a satellite teleconference entitled:

"Public-Private Partnerships & Privatization: Critical Choices for Utilities and Public Officials"

November 14, 1996, 11:00 a.m.-2:30 p.m. CST.

Through a series of case studies, this teleconference program will examine what public-private partnerships are, why and how cities have decided to form public-private partnerships, how private interests are involved, and what the results have been for the municipalities and for the utilities.

For further information please contact:
Western Canada Water and Wastewater Assoc.
P.O. Box 6168, Postal Station A
Calgary, Alberta T2H 2L4
Phone: (403) 259-4041 Fax: (403) 258-1631

Canadian Society of Civil Engineers (CSCE)

Introduction to GIS in Transportation Workshop

November 15-20, 1996, Winnipeg, Manitoba
Contact: Shirley Stewart
Phone: (506) 453-5000 Fax: (506) 453-4819,
e-mail sdms@unb.ca

Canadian Technical Asphalt Association

Annual Conference

November 17-20, 1996, Edmonton, Alberta
Costs $275 (Members) $382 (Non-members)
Contact CTAA by Fax or Phone (604) 361-9187

Mandatory Reporting – Everybody Needs it!

(Cont'd from page 4)

- Better service to members possible with new data base.
- Proactive solution to future needs.

Member Benefits

- Bench-marking to position us in the world around us.
- Improved mobility potential.
- Better access to professional development opportunities.

The implementation of Mandatory Reporting of professional development activities is a clear case of win-win-win. It is certainly not any form of new problem. Each of us is now facing a new challenge and opportunity to improve our personal and professional standing. There is nothing to be gained by sitting quietly on the sidelines while the world accelerates into the third millennium. We are leaders, and taking this small step can only improve our abilities and strengthen our profession. □