THE KEYSTONE PROFESSIONAL

APEGM The Association of Professional Engineers and Geoscientists of the Province of Manitoba

FEBRUARY 2000
www.apegm.mb.ca

APEGM Survey of Engineering Graduates and Employers

By: J.A. Blatz, EIT

The Association of Professional Engineers and Geoscientists of the Province of Manitoba (APEGM) recently engaged Prairie Research Associates Inc. (PRA) to undertake a two-phased research study on behalf of the association. The first study was of recent graduates from the Faculty of Engineering at the University of Manitoba and the second was of employers of engineers in the Province of Manitoba. The main purpose of conducting these studies was to better understand the number of graduates the Faculty of Engineering must produce to satisfy the needs of Manitoba companies who hire engineering staff and to understand the pattern of employment among engineering graduates. The following paragraphs summarize some of the key points presented in the report.

Copies of the detailed report can be obtained from Association for those who are interested.

The first-phase of the study focussed on a survey of recent engineering graduates. The study was conducted by surveying 407 graduates who matriculated during the period from 1992 – 1998. The group of 407 was sampled proportionally across the 1,207 graduates over the six years. This time frame was used to understand what 'typical' career path engineers take.

The results showed that approximately half of the engineering graduates surveyed are still in the Province of Manitoba and working as engineers. Over the seven years 28% have left Manitoba to take a job or search for employment. Some 90% of the graduates are currently employed. However, only 70% are in positions that require an engineering degree. In the first seven years of their careers, few of the respondents had been promoted into a non-engineering position.

After graduation, 40% reported having jobs waiting for them, 30% were immediately available for work, 18% returned for further education, and 9% took time off. Within a year, 85% of engineering graduates were found to be working or available for work.

While 28% of graduates live outside the Province, another 13% left and came back. Graduates who left the Province showed the most important reasons for leaving as being; finding a better job or better pay, perception that better career opportunities were elsewhere, or unable to find an engineering position in Manitoba.

Graduates reported that they were satisfied with their education from the University of Manitoba and believed that their engineering education from U of M was at least of some value in their positions as engineers. Over 80% of the respondents suggested improvements to the program. The most common

Continued on page 4

Commemorative Postage Stamp – The Ritual of the Calling of an Engineer

Submitted by: J. Bogan, P.Eng. –
Based on R.G. Dussault's November Press Release

André Ouellet, Chairman of the Board of Canada Post, recently informed the Corporation of the Seven Wardens that the Stamp Advisory Committee has recommended including a stamp commemorating the 75th Anniversary of the Ritual in its year-2000 program.

It is the Wardens' hope that the commemorative stamp project will strengthen the bonds among Canadian engineers by highlighting Canadian engineering achievements and the invaluable contribution to society made by Canadian engineers during the past century.

On this occasion it is also appropriate to note that the decision of the Corporation to pursue this stamp project marks an exception to normal policy. Since the inception of the Ritual in 1925, given the personal and private nature of the Obligation, the Wardens of the Corporation have and will continue to protect its integrity and to limit the use of the iron ring to its original and sole purpose – as a reminder to its bearer of the Obligation that he has taken voluntarily and solemnly. The reproduction of the iron ring on a commemorative stamp is thus a unique exception, justified in the eyes of the Wardens by the coincidence of the Corporation's 75th anniversary with the millennium year and their recognition that this would be a fitting way to mark the achievements of the profession during the past century.

Although the plans for the year-2000 stamp program have not yet been released by Canada Post, preliminary indications are that the stamp will be available in April 2000.

The Wardens offer their sincere thanks for the Association's co-operation and support in this matter and hope the positive fallout from this very special event will benefit the entire Canadian engineering community. ■

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The Communications Committee would like to hear from you. Comments on your newsletter can be forwarded to us through the Association office. Members are also encouraged to submit articles and photos on engineering or business topics that would be of interest to the membership.

New Members Registered November 1999

P.I.S. Bains (AB)	K.K. Dhiman	P.J. Kochan	M.I. Sheppard
A.W.S. Beaton (ON)	D.A. Dixon	K.J. Lau	R.E. Sigurdson
C.J.W. Berkis	J.C. Gertzbein	P.I. Lazarescu (BC)	D.H. Simms
I.T. Blakley	B.C. Gryba	H.A. Lissel (AB)	T.W. Smith (AB)
S.B. Blakley	C.G. Huber	M.W. Morrison	E.L. Wiens
N. Chow	B.B. Hurding (ON)	C.T. Roney	S.S.Y. Wong (BC)
B.D. Dempsey	R.P. Jayasinghe	T.C. Schwartz	

Members-In-Training Enrolled November 1999

M.H. Aikens	D.M. Friesen	K.H. Mathers	M.R.A. Shantz
R.P. Baril	R.M. Klassen	M.P.B. Nicolas	V. Srzic
V.M. Broadhurst	X. Li	S.S. Norsworthy	
S.J. Frederiksen	C.P. Madrid	M.C. Rowbotham	

Licences Issued November 1999

L.O. LaBere (ND)	M.S. Schor (ON)	C.W. Walker (WI)

EIT Resignations at December 31, 1999

R. Agatep	J.S.T. Dunn	K.D. Klymchuk	M.D.G. Michie
N.E. Bradley	T.W. Ewanochko	K.L. Larsen	J.I. Reagan
W. Dang	D.M. Fraser	M.D.P. Loewen	
G.F. Drouin	R.G. Keenan	R.B. MacGowan	

Resignations at December 31, 1999

F.R. Ara	S.A. Dencsak	V.G. Lappi	R.W. Pollock
M. Audet	C.W. Dibden	M.D. La Riviere	T.A. Prentice
G. Balodis	R.A. Ellis	Y.C. Leong	S.Y. Reitsma
B.P. Bettig	A.B. Epp	C.K.S. Lin	W. Rempel
G.C. Blachford	J.G. Fisher	B.E. Lingnau	D.E. Render
C.M. Bock	L.J.G. Frankenberger	W.I. McLernon	C.B. Rushton
B.H. Boley	S.D. Gasser	D.H. MacDonald	T.J. Ryan
J.P. Burnside	R.M. Girling	D.R. MacLean	S.W. Schmidt
R.J. Charles	B.P. Gojkovic	R.C. Mills	E. Sieber
R.A. Cherkewski	T.D. Harle	Z. Mlinarevic	T. Sivakumaran
H.W. Cochrane	W.A. Hazel	M.E. Moffat	A.G. Spafford
G.M. Comeau	R. M. Jones	M. Morelli	V.M.E. Story
M. Corkal	G.M. Kahler	G.E. Morrow	W.J. Tishinski
B.E. Crow	K.C. Kao	T. Nanthakumaran	G.R. Truscott
P.M. Crowley	B.H. Kautz	R.W. Newbury	K.J. Truss
D.R. Czop	R.J. Kavanagh	L. Nguyen	S. Unger
C.P. Daley	J.T. Kentel	W.R. Niemi	J.D. West
R.P.L. Daniels	L.L. Kitchen	L.H. Phan	C. Yan
D.R. Dawson	R.G. Kneale	G.R. Phare	K.C. Yuen
D. Demedash	W.T. Kwasnicki	R. Picard	A. Zerbin

Retirements at January 1, 2000

P.M. Abel	L. Ingram	G.W. Laycock	J.M. Reutcky
R.R. Adamson	B.P. Kendall	R.J. Lefler	T.A. Simons
B.N. Croaker	W.C. Kent	E.R. Levick	J.B. Tinkler
G.R. Drummond	V. Kocalka	L.E.M. Magalhaes	A.C. Trupp
R.C. Gupta	A.J. Kondel	L. Podheiser	P.C. Varshney
K.A. Hartikainen	E. Kuffel	F.L. Privat	

Correction

Our apologies to M.J. Long, who was incorrectly listed in the December issue as a recently enrolled EIT. Mr. Long is, in fact, a recently enrolled GIT.

In Memoriam

The Association has received with deep regret notification of the deaths of the following members:

Malcolm N. Collison
William W. Fotheringham

President's Message

John Hosang, P.Eng.

Major Decisions by Your Council

When organizations get together for the first time, it is usual for the meeting to be on the "light" side to allow everyone to become familiar with the people and the issues. Not so for your 1999/2000 Council. At the November 16th meeting, with four new councillors, two major issues were debated and dealt with.

The first issue involved the conditions for "grandparenting" geoscientists as they become members of the new Association. In case you are not familiar with the situation, I will provide a little background. The proclamation of The Engineering and Geoscientific Professions Act of Manitoba in June of 1998 initiated a grandparenting period of two years to facilitate the registration of geoscientists within the Association. The policy developed required that, to be eligible for grandparenting, an individual had to meet certain educational and work-experience criteria, and complete and write the Professional Practice Exam.

"Grandparenting is a technique commonly used to encourage participation when a group is organizing or re-organizing."

In September, many geoscientists who would otherwise qualify for grandparenting, contested the requirement to write the professional practice exam (PPE).

Council responded to their concerns by conducting an investigation to document all the issues. They then referred the information to the Admissions Board at the October Council meeting for reconsideration. The Board's recommendation, which was presented to Council on November 16th, was to keep the requirement for all grandparented geoscientists to write the PPE.

There was a lot of discussion among councillors on November 16th of all the issues and perspectives presented by geoscientists, the investigative group and the Registration Committee, but in the end Council voted not to accept the Admissions Board's recommendation. It also carried a motion to amend the Association's Grandparenting Criteria for Geoscientists, dated June 16, 1999, by waiving the requirement to pass APEGM's Professional Practice Exam.

These actions were not taken lightly, particularly as Council was rejecting a recommendation of one of its Boards. The reasons for this outcome can best be summarized by stating that Council adopted a broad, big-picture approach as it sought a resolution of the issue.

The creation of a new Association, that includes both professional engineers and professional geoscientists, is a very unique situation. It is a time when the Association must facilitate the registration of geoscientists so that we can fulfill the mandate issued to us by The Engineering and Geoscientific Professions Act of Manitoba. The Act itself will not cause them to join. They need to be encouraged; hence the concept of grandparenting was used to facilitate the entry of established geoscientists who would then serve as an example, or actively bring others into membership. Grandparenting is a technique commonly used to encourage participation when a group is organizing or re-organizing.

The previous Association (APEM) consisted of professional engineers who had written the PPE, and of those who had not by virtue of their time in the profession. This latter group included some geoscientists who were registered as Professional Engineers. As such, it did not seem unreasonable that, as geoscientists were being encouraged to join the new Association, consideration should be given to waiving the PPE for those who are otherwise equally qualified academically and experience-wise. With these two criteria being met, the element of risk was seen as no greater than for those professional engineers who have not written the exam.

The uniqueness of these circumstances places limits on the waiver that cannot be used as a precedent for others to join our Association. Whether they are members-in-training, engineers from other jurisdictions who do not qualify under the Mobility Agreement, or Geoscientists who might be "grandparentable" but forget to register before June 28, 2000, they will have to follow due process which includes passing the PPE.

The second issue your new Council addressed were the recommendations from the Member Competence Task Force. The main recommendation was to promote and support voluntary and not mandatory professional development by Association members, with respect to both competence and ethics. The recommendation followed the Stakeholder survey (performed for the Task Force by an independent company) which showed overwhelmingly that the major stakeholders within the world of engineering perceive no competency or ethical problems with engineers and expect that engineers are doing everything necessary to maintain these characteristics. The Task Force's recommendation was perceived by Council as a logical course of action, knowing that the concept of a compulsory program was not acceptable to the membership. As part of the decision there will be a communications strategy to develop awareness of the survey findings and the Council's decision.

The voluntary nature of the program that will evolve is not to be taken as diminishing its importance. In fact, the value of personal improvement will be emphasized in the communications strategy. The details have yet to be worked out. Much work lies ahead to bring this concept to reality. It will not be a simple dusting off of the program that was put on the shelf last year. All that Council has done so far is to give the go-ahead. Much more detail will come as this plan develops.

All in all, it was a very busy first Council meeting! ■

Notice
1999 By-Law Changes

This is notice that the by-law proposal dated November 12, 1999 has been ratified by the letter ballot. The ballots were counted on December 15, 1999. The results are as follows:

Ballots Mailed	3657
Ballots Returned	495
Spoiled Ballots	7
Ballots in favour of the proposal	422
Ballots opposed to the proposal	66

The by-laws dated November 26, 1996 have been superceded and the new by-laws came into effect on December 15, 1999.

D.A. Ennis, P.Eng., Registrar

Pay Your Dues!

Dues invoices have been mailed to all members, EITS and GITS. If you have not received yours, please contact the APEGM office.

All payments received in the Association office after February 29, 2000 are subject to the late payment fee of $54.00 – regardless of when they were mailed!

FINAL PAYMENT DATE – MARCH 31, 2000

All payments received in the Association after March 31 will be returned to the member or EIT/GIT – regardless of when they were mailed!

ALL MEMBERS, EITS OR GITS WHOSE DUES PAYMENTS ARRIVE IN THE APEGM OFFICE AFTER MARCH 31, 2000 WILL BE DE-REGISTERED OR REMOVED FROM EIT/GIT ENROLLMENT.

Innovators In The Schools Update

By: C.D. Rickey

Innovators in the Schools had another successful year (1998-99) with over 300 bookings reaching approximately 10,500 students. For the past six years in which Innovators has been in existence, over 69,000 Manitoba students have been touched by this program – an average of 11,500 students per year.

The Innovators program had a change in program manager during the past school session which effectively put the requests on hold until the new manager was brought up to speed.

The program has approximately 575 Innovator volunteers representing professions ranging from aerospace, agriculture and architecture to transportation specialists, weather forecasters, and zoologists. With the opening of the new virology lab, we now have an additional source of biologists, researchers, and virologists for presentations. Six scientists from the new lab have already joined Innovators and have participated as both science fair judges and speakers. Because so many of their staff are new to Win- nipeg, they have seen Innovators as an opportunity to contribute to their new community, meet other scientists, and visit other parts of the city.

There is more to the Innovators program than science-fair judging, classroom presentations, and mentoring. We are also responsive to requests for career-day speakers, job shadowing, in-service presentations and consultation with teachers and/or students via electronic mail. Some Innovators offer tours of their places of business to schools, which can affect career choices for students. This was brought to light recently when a school asked Innovators to organize tours of blood-testing laboratories. Because of the perceived shortage of laboratory technicians in Manitoba, Red River Community College was reviving its laboratory-technician course. The high-school teacher wanted to expose students to this possible career choice and asked Innovators for the tour.

Over the past season, marketing of Innovators included: a teacher's guide for programs at the Museum in both English and French (11,500 sent in September 1998 throughout province), a table display at the opening breakfast for science and technology week at the University of Winnipeg, a presentation at the annual general meeting of the Science Teachers' Association of Manitoba, a memo faxed to all principals and science teachers in Winnipeg and immediate environs, and an advertisement in the *Manitoba Technologist* requesting Innovator volunteers. The Economic Innovation & Technology Council (EITC) publication *Mindset* has offered to promote the program in its fall edition.

Two popular offerings are the World in Motion and Concrete for Kids programs. A training session for Innovators interested in giving presentations on these subjects was held in November 1998. Twenty-nine people participated in these classes.

An Innovators and sponsors appreciation reception was held in November at the Science Centre at the Museum of Man and Nature. This provided an opportunity for our Innovator volunteers to meet the staff and those who fund the program.

We have recently updated the graphics for the Innovator program. This design has been incorporated into new brochures, letterhead, envelopes and business cards. Because of its lead sponsorship of Innovators in the Schools, we have incorporated EITC's logo into our brochure and letter-head materials.

Engineers are a key component of the Innovators program. Fully one-third of our Innovators are engineers, but that number does not give the whole story. For example, when asked to provide a number of judges for a science fair, the majority of Innovators sent are engineers. Of the 160 judges requested last year, probably 140 were engineers. Their commitment to the promotion of science and technology within the classroom is evident through their participation.

The community service component of the Engineer-in-Training (EIT) program greatly serves the Innovators program as the EIT candidates volunteer for presentations and judging throughout the year.

We are fortunate for the support the Association of Professional Engineers and Geoscientists of the Province of Manitoba gives Innovators in the Schools and we look forward to continuing this relationship in the future. ■

APEGM Survey

Continued from page 1

improvements suggested were more practical applications including more hands on work, more co-op programs, fewer general courses, more specialized electives, and better courses or more courses on computers and new technologies.

The second phase of the study was a survey of 59 of Manitoba's largest employers of engineers. Of those solicited, 42 participated in the survey. The 42 respondent organizations employ a total of 1,444 engineers. The average number of engineers per organization is 24, although half the companies employ 14 or fewer. Of the positions which engineers hold, 84% require someone with an engineering degree, 51% require someone who also holds the designation as a professional engineer, and 45% of the positions are held by graduates of the University of Manitoba. Almost 75% of the engineers in the 1,444 positions hold degrees in electrical, civil, or mechanical engineering.

Some 60% of the organizations estimate the number of engineers in their organization will increase in the next two years. From the survey, it appears that a total of 654 engineers over the next five years will be required. This will average from 110 – 130 engineers per year over the five-year period. Half the organizations had an engineering position vacant at the time of the survey.

The most difficult disciplines to hire were mechanical and electrical engineering. The single most important factor listed by a majority of the organizations for hiring is the candidates' character. Other factors of importance listed were experience, area of specialization, eligibility for registration with APEGM, and academic performance.

Of the 1,444 engineers employed by the organizations, about 45% are University of Manitoba graduates. The majority of the organizations felt that the University of Manitoba does a good job of providing a comprehensive knowledge of engineering skills. That said, almost 1 in 5 rated the University as poor in providing engineering graduates with the ability to communicate effectively. The organizations cited improvements they felt could be made to the education and training for engineers at the University of Manitoba. The most noted improvements included making the co-op programs mandatory, ensuring graduates have work experience prior to graduation, more business training, more communication training, and better writing skills.

This is only a brief summary of the information contained in the PRA study reports. As mentioned in the first paragraph, the reports are available on request from the Association office. ■

Attention All Engineers

This Association, as well as engineering firms across Winnipeg, have been receiving strange, rude, pornographic, extremely unpleasant letters written by an individual impersonating or defaming:

A.B. Thornton-Trump
E.A. Thornton-Trump
J.M. Symonds
N. Bassim
C. Surgeoner

Other people have also been targeted.

The letters have been arriving at various firms, city offices, provincial offices and federal offices for the past 11 months.

Please inform your employers of the existence of these letters. Typically, the envelopes are hand-addressed, and have a return address of one of the "authors" or a "Linacre Road" address. If your firm has received any such letters, please contact Sergeant Ken Cameron of the Winnipeg Police, District #6, to arrange for retrieval of the letters.

We would appreciate your co-operation. This letter-writer appears to be trying to defame the supposed authors, and has apparently targeted the engineering profession.

Thank you for your attention to this matter. ■

Professional Development

Essentials to Keep Design-Build on the Right Track

By: W.T. Jackson, EIT

Why design-build? Is design-build appropriate for every owner? What is the advocate engineer's responsibility? These were some of the questions posed at the Breakfast Meeting sponsored by the Professional Development Committee at the Norwood Hotel on Wednesday, November 17. Tony Kettler, M.Sc., P.Eng., the regional Design Coordinator with PFRA (Prairie Farm Rehabilitation Administration) and Roy Houston, P.Eng., with KGS Group gave a dual presentation on the essentials of keeping design-build on track and to answer the key questions about the process. Mr. Houston's discussion represented the views of the design-build construction team which included the contractor, Kenaidan Contracting Ltd. Mr. Kettler's discussion represented the three levels of government.

Kettler and Houston have both been directly involved in the design-build project taken on by the City of Dauphin for its water treatment plant. Following the discovery of giardia in Dauphin's drinking water, health authorities imposed a "boil water order". In August 1997, a funding agreement for construction of a new water treatment plant was signed, where project costs would be shared equally by the Federal government, the government of Manitoba and the City of Dauphin. The "boil water order" was lifted upon completion of Phase 1 (temporary disinfection), and then design-build proposals for Phase 2 (main plant construction) were received by PFRA. Negotiations were concluded for construction of the water treatment plant, and the project was substantially completed in 1999.

During their presentation, both Kettler and Houston outlined a number of so-called "essentials" for keeping design-build projects on track. A detailed preliminary design produced by the owner's advocate engineer is necessary to clarify the client's needs, and the preliminary engineering report should be included as an appendix to the proposal call. They pointed out that it's necessary to have a sophisticated owner who must employ a highly-qualified advocate engineer for the duration of the work. It is also essential to ensure a minimum standard of quality is stipulated in the design-build proposal call to provide an appropriate balance between quality and cost. A design-build contractor should not be selected primarily on price; the two-envelope system is preferred.

Kettler and Houston said there were specific aspects about the design-build process that they liked.

- Firm costs for engineering and construction are obtained with minimal investment from the owner in engineering.
- The responsibility for facility performance rests on a single source.
- Rectification of defects can be done quickly because final payments are tied to facility performance.
- The owner is not mediating contractor/engineer disputes.
- The owner's advocate engineer is not in a conflict of interest, and can provide unbiased advice to the owner on facility performance, especially if engineering defects are uncovered.

However, there were a number of things about the process that they didn't like.

- There is a lot of in-depth work for the client up-front in preparing the proposal call and negotiating with the design-build contractor to ensure that the design-build contract reflects the client's needs.
- Quality assurance/quality control is in the design-build contractor's hands.
- A designer can be in a conflict of interest as a subcontractor to the design-build contractor, and should develop another type of relationship. ■

APEGM Member Competence Task Team Recommendations to Council

Adopted November 16, 1999

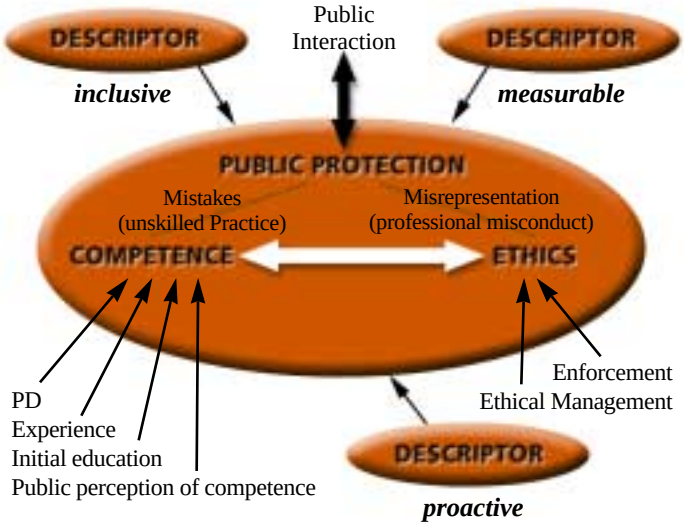
In accordance with Council's request to determine a way forward, and having received and considered the survey of stakeholders, the Member Competence Task Team recommends the following:

1. **APEGM should not proceed to implement a mandatory program for professional development, and should communicate this to its membership.** Stakeholders of engineering and geoscience services within Manitoba have indicated that they are largely satisfied with the current situation and they believe the public to be adequately protected both in terms of competency and ethics.
2. **APEGM should proceed to promote & support voluntary professional development by its members, with respect to both competence & ethics.**

   While stakeholders do not perceive major problems with competency or ethics, they have indicated that on-going professional development by practicing engineers and geoscientists is highly desirable and they support overwhelmingly voluntary professional development as the best way to achieve continuing competency & ethics review.
3. **A recommended first step is the preparation by APEGM of a Guideline on Professional Development.**

   The Guideline is a good measure in terms of due diligence.
4. **APEGM should incorporate mandatory professional development as part of its disciplinary system.**
5. **APEGM should proceed to develop improved means to educate/inform the public what to do if they encounter ethical or competency problems with professional members.**
6. **APEGM should proceed to publish a non-confidential summary of the results of the stakeholder survey (i.e. names or references to stakeholders removed) in a manner that will allow broad exposure to Members of the Association, Stakeholders, the Minister of Labour, the public-at-large of Manitoba, and other Engineering Associations.**
7. **APEGM should proceed to address the important issues raised by stakeholders in the "APEGM's RELATIONSHIP WITH STAKEHOLDERS AND THE PUBLIC" portion of the survey, pages 7 through 10 inclusive.**
8. As described in the survey, Stakeholders were very impressed with the initiative taken to ask their opinion and look forward to maintaining that relationship. Therefore, **APEGM should undertake to formalize a strategy to maintain a relationship with Stakeholders.** ■

Figure 1: **Task Force Model**



Are You A Diligent Supervisor?

by: S. M. Matile, P. Eng

Since January 1, 1995, this Association has had a mandatory Pre-Registration Program for engineers-in-training (EITs). Recently, this program has been expanded to accommodate geoscientists-in-training (GITs). Under this program, engineering and geoscience graduates are required to enroll with this Association as EITs or GITs prior to obtaining four years of acceptable engineering or geoscientific work experience under the direct supervision of a professional member. Also under this program, the EIT or GIT is required to report to the Association, every six months, on his or her work experience, for review by and feedback from our Experience Review Committee.

An integral part of the Pre-Registration Program is the participation of the supervisor, the employer, and the referee. The success of the program depends on the active participation and prompt cooperation of the professional engineers and geoscientists who work with, mentor, and supervise EITs and GITs.

EITs and GITs are responsible for enrolling in the Program, meeting the requirements of the Program, and ensuring that their supervisors and employers are aware of the requirements placed on them by the profession through the Program.

Supervisors are responsible for assigning work, and for providing advice and support to EITs and GITs. They must ensure that the engineering or geoscientific work is progressive in complexity and responsibility. They also play a role in the continuing education and professional development of EITs and GITs. And they play a very significant role in verifying the work experience and the progress of EITs and GITs.

Every six months, the supervisor is asked to complete a form to verify and comment on the information provided in the EIT's/GIT's work experience report. Until that form is completed and returned, the Experience Review Committee cannot evaluate the EIT's/GIT's progress, and cannot provide feedback as to the acceptability of the experience being obtained.

Most supervisors take this responsibility very seriously and are professional and prompt with their responses. We are extremely grateful to them for the time and effort they expend on our behalf, and we sincerely thank them for their willing participation in our Program.

Unfortunately, however, there are some supervisors whose workloads appear to be such that they are unable to provide the information we request. These professionals are hurting their employees because we are unable to provide the employees with the feedback so vital to their career development.

Until recently, we did not have the resources to track delinquent supervisors, and we relied upon the EITs and GITs to ensure the timely submission of supervisors' reports. We have recently updated our database, however, to allow us to generate a list of overdue supervisor reports. Sadly, our first list identified 234 outstanding reports dating back as far as January 1997. For each and every one of these reports there is an EIT who has not received any feedback on his or her progress in the Pre-Registration Program.

If you are one of the 234 delinquent supervisors, we urge you to complete and return the form to us as soon as possible. We recognize that you are busy and cannot always respond to us immediately, but we are relying on you, as a professional, to assist us in developing the highly qualified engineers and geoscientists who will be valued members of the professions in the future.

If you have misplaced your form, please either call the office (474-2736) to request another, or download a copy from our website (**www.apegm.mb.ca**). ■

CCPE President's Message

Dan Levert, P.Eng., L.L.B.

Research Needed to Counteract Brain Drain Hype

As a profession, we should be concerned when a report published by a respected organization states that 52 per cent of all new engineering graduates in Canada from 1995 to 1997 emigrated to the United States. Based on the data compiled in CCPE's *Canadian Engineers for Tomorrow, Trends in Engineering Enrolment and Degrees Awarded 1993-1997* report, this would mean that we have lost approximately 12,433 of the 23,929 engineering students who graduated from a Canadian university in those three years.

In fact, the 52 per cent Canadian engineering graduate "brain drain" that Mahmood Iqbal postulates in his 1999 study, *Are We Losing Our Minds?, Trends Determinants and the Role of Taxation in Brain Drain to the United States*, published by the Conference Board of Canada, appears to be invalid. A study conducted by Human Resources Development Canada (HRDC) and Statistics Canada (Stats Can) this year, *South of the Border, Graduates From the Class of '95 Who Moved to the United States*, found that only 448, or 5.5 per cent, of the more than 8,000 individuals who graduated from a Canadian engineering or applied science program in 1995 had emigrated to the U.S. by the Summer of 1997. Of those graduates, 18 per cent had returned to Canada by March 1999, and 43 per cent of those who were still in the U.S. planned to return to Canada eventually.

It's also interesting to note that while the Conference Board report blamed high Canadian taxes for the "brain drain" to the U.S., the HRDC/Stats Can report found the majority of graduates emigrated to the U.S. to take advantage of better employment or education opportunities, and that lower taxes were not a factor in their decisions. The HRDC/Stats Can report drew its conclusions from actual interviews with graduates, while Mr. Iqbal relied on an econometric analysis to establish a quantitative link between emigration and the factors responsible for it.

All the recent media hype about the "brain drain" appears to be part of a concerted effort to gain public and government support for federal income tax reductions. This is reflected by the scant coverage the *National Post* gave to the HRDC/Stats Can report's release – its front page featured a story on the results of a national poll that found 82 per cent of Canadians *think* the brain drain is real, and 63 per cent want tax cuts to be introduced to stop it. The story on the HRDC/Stats Can report was buried in the business section. Other newspapers, including the *Globe and Mail*, *Toronto Star*, *Hamilton Spectator*, and *Ottawa Citizen* also ran one-sided stories on the Conference Board report and the brain drain. CCPE drafted a Letter to the Editor expressing our concerns over the media's unbalanced coverage of the brain drain issue, and submitted it to the five newspapers. It was subsequently published by the *Spectator* and the *Citizen*.

> ***"From engineering's perspective, the results of the Post's national poll are significant only because they indicate 82 per cent of Canadians are misinformed about the brain drain."***

From engineering's perspective, the results of the *Post's* national poll are significant only because they indicate 82 per cent of Canadians are misinformed about the brain drain. Similarly, despite the alarming statistics reported by the Conference Board, the real issues for our profession are the unbalanced coverage the media gave to Mr. Iqbal's study on the brain drain and its contribution to public misconception. According to Stats Can and other authorities, Mr. Iqbal's methodology is questionable. His findings were also refuted by the HRDC/Stats Can study, and are not supported by anecdotal evidence.

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Meet Your New Councillor – Greg Hamilton

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

This is the latest in The Keystone Professional's Meet Your New Councillor articles.

Greg Hamilton is among the group of newly elected councillors. Recently, I met with Greg to discuss his recent election, positions on issues currently before Council, and to learn more about his personal background.

Greg was raised in Shawinigan, Quebec until he was fourteen and moved with his family to Ottawa. Greg graduated from University of Ottawa in 1972. (By the way, Greg's father was also an engineer.) His first employer was Peter Kiewit and Sons in Toronto and he worked with them until 1975 when he moved to Armbro Construction in Thunder Bay. In 1977, Greg re-located to Winnipeg with BACM Construction and served as Resident Engineer on the expansion of a cement plant in Edmonton. In 1979, he moved to Vancouver with Northern Construction and worked on various projects, including the construction of a water-treatment plant in Lethbridge, Alberta, and other assignments in the Northwest Territories.

In 1983, Greg joined CP Rail in Calgary and was involved with the Rogers Pass project. In 1988, he was transferred to Montreal and served as a Senior Bridge Engineer until 1995. He was responsible for the design and inspection of bridges and structures throughout CP's system. While at CP, Greg credits Trevor Webster, a former Engineer of Bridges, for guiding him in his professional development.

In 1995, Greg joined the Department of Highways, of the Province of Manitoba, as the Chief Bridge Construction Engineer, where he has since participated in numerous bridge projects throughout the province. Greg's other responsibilities include overhead sign structures, as well as concrete and steel culverts greater than two metres in diameter.

Greg married Jane, who hails from Saint John, New Brunswick, in 1974. They have two children: Chris – who is currently in the second of a three year Civil Engineering Technologist co-op program at Red River Community College; and Sarah, who is in Grade 12.

As a new councillor and a veteran of one Council meeting, Greg sees the issue of professional development, and the members' concern for mandated development, as current key issues. He says, "It must be handled in a manner satisfactory to the membership."

Greg also stated that he was honoured to run for Council and hopes to contribute to the Association, of which he is proud to be a member. Compared to other provinces, he feels Manitoba has a strong organization and credits this to the willingness of members to volunteer their time and actively participate. Greg also feels young engineers have a positive outlook towards the Association and are eager to become involved.

During my interview with Greg, I didn't have the opportunity to ask about current hobbies. I know he would probably include golf as one. Having toured the links with Greg before, my suggestion would be to have the gallery behind him at the first tee of the next Association tournament. ■

New Councillor Greg Hamilton

Council Reports

Tuesday, November 16, 1999

By: A.N. Kempan, P.Eng. (Ret.)

GRANDPARENTING IN, PPE OUT

The November meeting was a showcase for the latest crew of the good ship APEGM. The new captain was at the helm and the seasoned hands mingled with their new shipmates. In addition to newly elected councillors Laura Penner P.Eng., and Greg Hamilton, P. Eng., we welcomed two new lay councillors, Marion Suski and Wayne Ruff.

A nagging ghost appeared from the October meeting in the form of grandparenting of geoscientists. Council had postponed the inevitable by sending the problem back to the Admissions Board, but now decision time had arrived. The Admissions Board's latest deliberations reaffirmed that geoscientists should write the Professional Practice Exam (PPE). However, that decision was not unanimous, with Doug Chapman and Alan Silk voting against the requirement.

The discussion commenced with Doug Chapman and Shirley Matile providing background information and then leaving the meeting. Next, President Hosang disqualified himself from the chair based on his recent involvement in the issue. Past-President Britton took over in his place. No sooner had the stage been set for a very interesting discussion when Dr. Britton and Councillor Eschenwecker suggested that the discussion be held "in camera".

Councillor Ruff showed that while he might be new, he was definitely not shy, and questioned the necessity for secret discussion. Councillor Quinn was quick to wade in, and said that she questioned the need for any "in camera" discussions of any kind. Councillor Rizkalla could see the need for secrecy if personnel matters were at issue, but not for the business at hand. Councillor Penner felt that members needed to know the positions of elected members. So it was that Council voted on whether to hold the discussion "in camera". Members voting against secrecy, 13, members for, 0.

The real debate began with a motion requiring geos to write the Professional Practice Exam. President Hosang began by speaking as an ordinary member of Council, saying that the legal opinion was there against the writing of the PPE. He felt that forming an organization for geoscientists was a unique circumstance; the prospective members were limited in numbers and in their time available to act. It was not an open door.

Councillor Quinn said she had spoken to as many geoscientists as possible and even those who had written the PPE still felt that it was unnecessary. The PPE wasn't part of the polling and discussion before joining APEGM, so it came as a surprise to geoscientists. She also said that the present membership had rejected mandatory professional development, but geoscientists saw the PPE as just that. Councillor Quinn concluded by saying that many geoscientists have advanced degrees and plenty of enthusiasm, exactly the type of person APEGM needed.

Councillor Ball didn't support writing the PPE because geoscientists are a well-experienced group, although he favored sending out the PPE as a voluntary exercise. Executive Director Ennis noted that the PPE questions are proprietary and cannot be released but that all applicants are required to pass the Professional Practice Test on the Legislation and Code of Ethics.

Councillor Matthews spoke against the motion, citing opinions he had gathered from other authorities. At this point Mr. Ennis provided a rundown of the grandparenting criteria to refresh people's memories. Dr. Britton asked for statements from those people who supported the motion, only to be met by silence. It appeared that by this time early supporters had folded their tents and slipped away.

Councillor Ball wanted to know how many geoscientists had already written the PPE; about 60, he learned. How many potential members are there? About 300, said Mr. Ennis. Councillor Pollard suggested that the vote on the motion be a secret ballot, and so it was. The result was that the grandparenting geoscientists do not need to write the PPE. Councillor Ruff closed the discussion by saying that, from an outsider's point of view, the process was a valuable exercise. To be fair to those geos who had written the PPE, Council amended the motion to provide refunds and to remove from members' records information that the test was taken.

In other news, Council moved that Executive Director Ennis provide proposals on how to implement critical items for the new Governance Manual. Included in those was a new policy on investing. At present, APEGM parks its money in ultra-safe interest-bearing instruments. Maybe it's time for more aggressive performance? ■

Tuesday, December 14, 1999

By: J.A. Blatz, EIT

AT WHICH COUNCIL DISCUSSES PROFESSIONAL DEVELOPMENT AND EMERGING TECHNOLOGIES

The APEGM boardroom table was filled to capacity as all but two councillors were in attendance at the December 14, APEGM Council meeting. President Hosang started the meeting promptly as the group tackled the twenty-plus agenda items.

One of the first items was a review of on-going issues and activities of the Executive Committee and Council. For the first time in the tenure of the current Council the full financial statement of APEGM was presented for review. This will be an annual activity where the Council will have the opportunity to review details of the 17 pages of APEGM's financial situation rather than the three pages of balance sheet and statements of income and expenses. Little discussion arose regarding the financial statement and Council accepted the report as presented.

The report from the Registration Committee generated much discussion regarding annotated comments in the November report. Two specific cases were cited where comments, noted under the name of individuals regarding their application, could be taken as being prejudicial. A second topic rising out of the discussion examined the ceremony at the annual general meeting where the number of confirmatory exams completed was announced for those members who had written them. Discussion ended with a motion to ensure that the information in the registration reports be maintained as confidential within the Registration Committee and that the number of confirmatory exams completed not be announced when presenting certificates at the annual general meeting.

The meeting moved on to the governance manual and details of new by-laws being proposed. The list of the by-laws were presented by Mr. Ennis as councillors volunteered to spend time reviewing and recommending changes to each one. The topic was again re-visited later in the meeting when looking at the Certificate of Authorization Implementation Strategy.

With the arrival of one of the absent Council members, nominations for president-elect, and Council member on the Executive Committee, were held. A number of councillors were nominated for president-elect. However, all of those nominated declined due to prior commitments and heavy workloads. The nomination process will be re-opened at the next Council meeting. The Council elected Alan Pollard as the Council member on the Executive Committee.

Professional Development was next on the agenda as results from the Member Competence Task Force were presented in a list summarizing recommendations to Council. The first recommendation, which would be of interest to a majority of the membership is that APEGM should not proceed to implement a mandatory professional development program. The task force, however, did have a number of recommendations to support ongoing voluntary professional-development opportunities. A motion was passed to create a new task-force to act on the recommendations as presented.

The meeting then shifted gears to a more enjoyable agenda item as Councillor Rizkalla presented the nominations from the Awards Committee for recipients of the Certificate of Engineering Achievement, the Merit Award, and the Leadership Award. Council accepted the nominations and

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The Humbling of the Engineer in the Face of Nature's Ingenuity

(An Inventor in the Garden of Eden by Eric Laithwaite, Cambridge University Press, 289 pp., 1994)

A book review by: B. Stimpson, P.Eng.

Professor Eric Laithwaite, English electrical engineer extraordinaire and Emeritus Professor of Imperial College, London, never forgot his high-school biology while spending much of his academic career carrying out research on linear induction motors. For his discoveries and inventions he has received many awards, including the prestigious Nikola Tesla Medal of the AIEEE. In 1977 he gave the first of what grew into many lectures and television appearances on the topic of engineering and biology, with titles such as *Engineering and Nature, Man-Made, God Made, The Quick and the Dead,* and *Insects-and-Innovation.* Finally, he put pen to paper and wrote *An Inventor in the Garden of Eden,* a title he chose because, with no formal background in biology, he tends "to view the natural world in the same naive way that our ultimate ancestors viewed Eden." This book attempts to encapsulate the salient ideas and reflections gathered over a period of 25 years.

It is difficult to accept his self-declared naiveté, for clearly, Laithwaite has no ordinary mind. Almost restlessly, as if not wont to alight on any one topic for too long, he leaps from one subject to another – shape, size, topology, logic, adaptation, feedback, viscosity, gravity, logic, wisdom, habit, sight, simplicity, and on and on – until the reader begins to capture his sense of wonder about the natural world.

This book is an antidote to the hubris of modern technology and its seeming "master" of nature, but in no way is anti-technology. Laithwaite opines that the human engineer could profitably seek effective solutions to difficult engineering problems by observing the natural world.

Laithwaite is a keen observer himself and appears particularly fascinated by the capabilities and "technologies" of insects. Spiders, he notes, can resist ten times the radiation dose that would kill a human and have the "know how" to manufacture "anti-Araldite". As the web is spun, the silk emerging from the spinnerets is dowsed with another chemical from a separate gland that has the effect of allowing the circumferential strands on the web to remain sticky for some time. Without this "anti-Araldite" the silk thread would harden too rapidly because of its large surface-to-volume ratio. Spiders also do not appear to be impressed by high voltage wire. Laithwaite reports the effort to zap Sammy spider who had found his way onto the wire in the plant of a builder of electrical transformers in England. Ramping up the voltage to 50kV, the "executioner" was surprised to see Sammy lower himself at a rate of about one inch per kV so as to remain "unfried". If the voltage was applied suddenly, Sammy moved rapidly; if gradually, he lowered himself at an appropriately lesser rate. His awareness of the environment was confirmed by a calibrated scale placed near the wire. His would-be "executioner" was so impressed that he spared Sammy and rewarded him with a meal of flies.

Laithwaite also shares some of the fascinating discoveries he has made in his own garden. On one occasion he observed the passage of spiders back and forth along a thread attached to the back of his chair at one end and a low wall and spiders' "cocoon" at the other. Simple logic told him that, since his observations showed six or seven spiders moving from wall to chair for every one moving from chair to wall and no spiders were disembarking at the chair, he had a mass-balance problem. Magnifying glass in hand, he discoverd that the thread is actually twinned and at the centre of the span a spider was seen to push the threads apart while other spiders held the threads together fore and aft. The spider in the centre then released its grip on one thread and was promptly launched into the air. These spiders were exploiting the principle of the bow and arrow!

The spiders' exploits and abilities seem simplistic compared to the accomplishments of Kenya's flattid bug. Laithwaite was likewise impressed and quotes directly from Robert Ardrey's (of *African Genesis* fame) vivid description of his first acquaintance with this remarkable insect. Groups of these small bugs protect themselves from birds by alighting on twigs and arranging themselves in the form of a flower, a flower that does not actually exist in nature. To make this possible, some of the insects are pure coral in colour, others green, and others with in-between shades. Each knows its position so that if a twig is shaken the cloud of disturbed insects returns to the twig and, in what looks like a random movement, are rearranged into the form of a flower. Locally known as the coral flower, it is made up of small blossoms like the aloe or hyacinth.

The material in this book is eclectic and the change of topic sometimes disconcertingly sudden. One moment he can be talking about power systems and the next moment suggesting that calculus can be taught to seven-year-olds. He has three grandchildren so, no doubt, he'll be testing his calculus theory out on them if he hasn't already done so! With a grandfather like that, there will surely never be a dull moment! ■

NEW People Wanted

By: R.H. Bernhardt, P.Eng.

Preparations for National Engineering Week (March 2-5, 2000) continue. As with any large endeavour undertaken solely by volunteers, extra helping hands are always appreciated. In particular, individuals willing to give approximately four hours of their time during NEW to staff a display area in Polo Park Mall are being sought. Any P.Eng. or EIT is welcome. Retired members willing to share their engineering experiences with the general public are particularly asked to help.

In a related area, individuals or businesses willing to give or lend materials for the display area are also being sought. The desired material includes promotional information (brochures, posters, etc.), tangible items (final products or parts), and/or VHS videotapes.

If you wish to volunteer your time, or provide display materials, please contact Richard Bernhardt (ph. 788-2969; e-mail rbernhar@bristol.ca) or John Rooney (ph. 788-5438; e-mail john_rooney@standardaero.ca). ■

All Aboard

Translated by: V.L. Dutton, P.Eng. (Ret.)
from the Quebec Association's PLAN, November, 1999

Are there any of our members who have not heard of France's high-speed trains – their TGVs? Thanks to Bombardier Transport, in conjunction with Alstom, North America should soon see its first high-speed train running between Washington, New York, and Boston.

Production of 18 trains, each with two engines and six passenger cars, and 15 additional locomotives, was started two years ago. In 1998, Amtrak ordered two more trains, thus bringing the contract with Bombardier to $972,000,000.

Bombardier's team of engineers have been testing the equipment on the 20km test loop at the Transportation Technology Centre, at Pueblo, Colorado, since November 1998. Starting with two locomotives, they have now been testing a complete train since last June at speeds up to 240 km/h. Their mobile laboratory "records, on computer monitors, all the information coming from some twenty electronic devices on each locomotive and a dozen on each passenger carriage". Even the super-elevation of the curves on the track has to be considered when the trains using them travel at such high speeds.

This is a project of which all Canadian engineers may be justifiably proud! ■

Practical Flexible Working Arrangements

By: B.A.K. Danielson, P.Eng.

A sub-committee of the Women in Engineering Advisory Committee (WEAC) has prepared a series of articles to provide information to members of APEGM about flexible working arrangements that began in the October, 1999 issue of "The Keystone Professional". The members of the sub-committee are: Brenda Danielson (Chair), Elan Swatek (WEAC Chair), Meghan O'Laughlin, Carolyn Geddert, Kelly Olischefski, and Robin Hutchinson. The complete document is available on the APEGM website under "What's New".

The following is the third in a series of seven articles.

Permanent Part-Time

Description

A part-time working arrangement means working less than the full-time hours (40 hours per week in many instances). Salary should be pro-rated for the actual number of hours worked and hourly wages should be equal to those of the full-time employee. Benefits are generally pro-rated in proportion to the number of hours worked compared with a full-time employee. The employee is recognized as permanent. Working schedules vary widely and may include a certain number of hours each day or certain days of the week or a combination of these.

Part-time work has changed over the last few decades. Part-time workers are no longer in the category with term or temporary employees. Most depend on their job financially and, like their full-time counterparts, expect training and career development.

Considerations

A permanent part-time working arrangement offers the employee the same benefits as job sharing and many of the other flexible working arrangements. The specifics of the job must be considered since some jobs require a full-time employee. Unfortunately, the shift to part-time from full-time work may draw negative reactions from co-workers and employers may view the switch to part-time as less of a commitment to the job and to the employee's career. The potential loss of responsibility and accountability may leave the employee with a feeling of demotion.

Advantages

- reduces absenteeism due to illness, personal appointments, vacation, or extended leaves
- increases productivity due to decreased fatigue of employee
- potential cost-saving for the employer
- reduces working hours in high-stress jobs
- more time and opportunity for professional development
- more time for family responsibilities
- opportunity to maintain a career while raising a family

Disadvantages

- both employee income and benefits will be proportionally reduced
- less potential for advancement
- responsibilities may be reduced ■

CCPE President's Message

Continued from page 7

However, both studies point out another issue we must come to grips with as a profession, namely, our lack of knowledge about what Canada's engineering graduates actually do when they leave school. Some may indeed emigrate to the U.S. Others may pursue graduate degrees, or enter different fields or professions altogether. We simply don't know.

On average, only 60 per cent of our engineering graduates ultimately register with their provincial or territorial regulatory engineering association, and recent evidence suggest this percentage is declining. Determining why 40 per cent of graduates choose not to register and what they do following graduation will be essential if we hope to respond effectively to future media reports on the brain-drain issue, or develop programs to promote the value of registration and bring these graduates into the fold. CCPE, through the Canadian Engineering Resources Board, is designing a new study to gather data in these areas. Combined with the on-going research of Stats Can, this study will help Canada's engineering profession manage the challenges facing us as we approach the new millennium. ■

APEGM VISION

APEGM is the leader and a facilitator of the process that ensures excellence in engineering, geoscience and applied technology for the public of Manitoba.

The Kelsey Chapter of APEGM and APEGS

By: B. Kurczaba, P.Eng., Chapter Chair.

The annual meeting of the Kelsey Chapter of APEGM and APEGS was held in The Pas, Manitoba, on November 17, 1999. Elected to the Chapter executive for the 1999/2000 year were: Brian Kurczaba, Chair; Don Harfield, Past Chair; Kim Lau, Vice Chair; Selvin Peter, Secretary; Thomas Meier, Treasurer; and Members at Large: Peter Rowbotham, Ted Hewitt, and Ross Conner. Earlier in the year, we had the pleasure of welcoming the Geoscientists into the Chapter and are now fortunate to have two new executive members, Kim and Ross, with professional backgrounds in geoscience.

The incoming executive would like to acknowledge the efforts of John Macleod and Don Harfield for the leadership they provided during the initial two years of growth and development of the Kelsey Chapter.

In addition to the election of the new executive, our November meeting featured a presentation on Commercial and Industrial Air Pollution Control Technologies by Dr. Dinko Tuhtar of Boma Environmental & Safety Inc.

The upcoming year will be one of stabilization for the chapter, with several initiatives and activities planned to compliment our regular dinner meetings/presentations. Following an initial planning session in The Pas, it was agreed that the Chapter would partner with local schools in conjunction with the "Innovators in the Schools" program, which would see Chapter volunteers making presentations in the schools for the purpose of promoting the Engineering and Geoscience professions. As well, plans are currently underway for the Chapter's participation in National Engineering Week in March.

For further information on the Kelsey Chapter and our activities, check out our website at **www.apegs.sk.ca/kelsey.** ■

Kelsey Chapter Executive 1999/2000 (from left) Don Harfield, P.Eng., Past Chair; Brian Kurczaba, P.Eng., Chair; Kim Lau, P.Geo., Vice Chair; Selvin Peter, P.Eng., Secretary; Ross Conner, Member at Large; Peter Rowbotham, P.Eng., Member at Large. Missing are Thomas Meier, P.Eng., Treasurer and Ted Hewitt, P.Eng., Member at Large.

December Council Report

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the awards will be presented during National Engineering Week in March.

A request from the Emerging Technologies Committee (ETC) to re-examine their scope and role as a committee generated lengthy discussion. In their letter to the Council, the ETC asked Council members to attend a meeting in early January to provide them with direction and leadership regarding their role under the new committee organizational structure. Council discussed ETC's new role and Council representation was sought to attend the meeting in January.

Heated debate followed regarding a new agency advertising certification programs for environmental practitioners. The Canadian Council for Human Resources in the Environmental Industry (CCHREI) is offering a program to become a Canadian Certified Environmental Practitioner (CCEP). The certification includes a number of services such as PD opportunities, a newsletter and also has a code of ethics to be followed by certified members. Councillors raised concerns regarding interpretation of the qualifications of certified members and public confusion that could arise when obtaining the services of those environmental practitioners. Council passed a motion to draft a letter to the CCHREI organization outlining its concerns and stating that regardless of certification, registration with APEGM is required before undertaking any environmental engineering work.

The lively discussions continued into the next agenda item on Manitoba engineering technologists moving towards developing a stamp for their members. This came as a surprise to some Council members as a joint board between the Certified Engineering Technologists Association of Manitoba (CTTAM) and APEGM has been in place to discuss these matters. The fact that the issue had not been handled by the joint board and had come up suddenly in the Council was a disappointment to many members. The Council agreed that the matter should be handled quickly by the President and the Executive Committee.

After two more short information items, the four-hour Council meeting was adjourned.

This is a brief synopsis of the December Council meeting. If you would like further information regarding any of the items mentioned in this summary, please contact the APEGM office directly. ■

APEGM

Notice

Liability Insurance

This is notice that the Association's by-laws which were ratified by letter ballot on December 15, 1999 require that

"Each professional member before undertaking to provide professional services to a client shall either:

a) have professional liability insurance coverage through a policy held by the member, or his or her employer; or

b) shall notify the client that he or she does not have professional liability coverage.

If not so insured, he or she shall receive from each client written authority to provide those services without insurance.

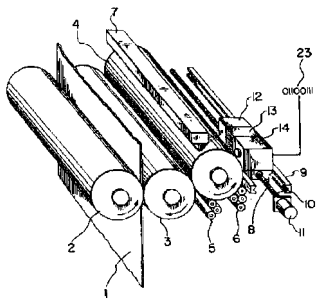
If so insured, the professional member shall within ten days inform each current client of any change in insured status or coverage, or of written notice of change by the insurer."

An example Disclosure Notice and Authorization Form is included with the regular mailing of this issue of the Keystone Professional and is also available through the Association office.

D.A. Ennis, P.Eng.
Executive Director & Registrar

Science Fair Judges Urgently Needed!

Contact Carolyn Rickey at Innovators in the Schools 988-0669.



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