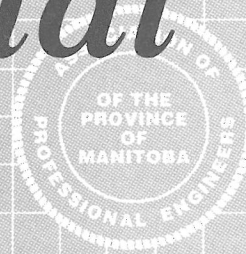


Professional Engineer



October 1986

CNR Develops Articulated Grain Car for Churchill Rail Line

By J.W. Bogan, P. Eng.

A new prototype articulated grain car has been constructed at CNR's Transcona Shops and the car has been successfully tested between Winnipeg and Churchill.

Development of the new car is a result of gradually retiring the existing boxcar fleet and the inability of the rail line to Churchill

to safely handle the present generation of 100 ton grain hoppers.

The concept and design engineering for the car was done by CN's Equipment Department in Montreal and Winnipeg, which selected an articulated hopper car. The car features two bodies supported by one truck at the centre and a truck at each end. This



CNR's articulated grain car developed for the Churchill rail line.

axle spacing arrangement causes less track loading than conventional hopper cars.

The prototype car features a low centre of gravity (84 in. above the top of rail), an articulated connection, and a relatively short distance between truck centres. These features provide good stability and make the car ideal for rail lines with severe surface irregularities. The more uniform track load

distribution creates lower stresses to the track structure which will decrease maintenance costs.

While CN was responsible for the costs of designing the new car, the Governments of Canada and Manitoba shared equally in the cost of constructing the prototype under the Economic and Regional Development Agreement between them. □

U of M Faculty of Engineering Establishes Endowment Fund

By G.A. Morris, P. Eng.

The University of Manitoba Faculty of Engineering has established an Engineering Endowment Fund whose annual proceeds will be used to enhance the Engineering programs and promote excellence in the Faculty. The fund campaign will be part of the \$42 million Development Fund Campaign recently launched by the University.

In announcing the Engineering Endowment Fund, Dean Ed Kuffel explained that it will be distinct from the Faculty's operating and capital budgets, which provide for a reasonable quality of engineering education in Manitoba. The endowment fund, on the other hand, will be used to enrich the

Engineering programs by providing the "extras" that cannot be afforded now. Some possible uses are library acquisitions, the upgrading of instructional and computer facilities, support for guest lecturers and visiting experts, support for innovative student activities such as design competitions and technical presentations, and scholarships to attract the best possible students to the Faculty. When in operation, disbursements from the fund will be overseen by a committee with representation from the various donor groups.

Dean Kuffel has appointed a couple of

(continued on page 2)

1986 A.P.E.M. ANNUAL GENERAL MEETING

By E.W.J. Clarke, P. Eng.

WHAT? WHERE? WHEN?

The Annual General Meeting of the Association of Professional Engineers of the Province of Manitoba will be held in Winnipeg at the Holiday Inn Downtown on Friday, October 24, 1986, starting at 9:00 a.m.

WHO?

Every Professional Engineer in the Province should strive to attend.

WHY?

Whatever your employment status or engineering discipline, you will find it worthwhile, instructive, beneficial, and enjoyable to attend the 1986 Annual General Meeting.

It has been estimated that almost 85% of Manitoba's engineers are employees. Other Association members, particularly those who are employers of engineers, inevitably must share the professional issues and problems which are of vital concern to the employee engineer.

The theme of the meeting will be "Professionalism and the Employee Engineer." Our guest speaker, Professor J.T. Stevenson, will speak, answer questions, and lead discussion on this important topic.

Jack Stevenson is Associate Professor of Philosophy at University College, University of Toronto. Among other courses, he teaches "Ethics and the Law" at the College, and "Engineering and Ethics" in the U of T's Faculty of Applied Science and Engineering. He is active as a lecturer, commentator and writer on ethical issues in engineering and technology, and is presently writing a book on Engineering Ethics: Practices and Principles.

Earlier this year, Jack Stevenson lectured at the University of Manitoba on the subject of "Making Professional Self-Regulation Work for Engineers." That lecture, thanks to Jack's knowledge, wit, and insight, and his ability to involve his audience, was immensely interesting. Those few who were fortunate enough to attend know that Jack's presence will ensure a valuable and stimulating session at the AGM.

Ethics clearly are central to the profes-

(continued on page 2)

A.P.E.M. 67TH ANNUAL GENERAL MEETING

(continued from page 1)

sional dilemmas faced by the employee engineer. Many difficult questions confront the employee engineer, including:

- Can an engineer function adequately as a professional while serving as an employee and/or while reporting to a nonprofessional? Can full professional responsibility be sustained when decisions must be shared with other engineers and possibly with non-engineers, who will not necessarily respect professional ethics and the responsibilities of engineers under the Act?
- How can and should an engineer satisfactorily reconcile professional duty to the public with the duty of an employee to his or

her employer? Of what professional principles should the employee engineer be particularly conscious?

- What can and should the Association, as a statutory licensing body, do to advise, assist, and support the employee engineer?
- How real is the need for whistleblowing legislation, public advocacy review boards, or other governmental measures to protect the employee engineer?

Quite apart from interest in the important subject of the employee engineer, attending the 1986 Annual General Meeting is also part of our responsibility as professional engineers.

George Washington said that "in proportion as the structure of a government gives force to public opinion, it is essential that public opinion should be enlightened."

Our Association was established as, and is intended to be, a self-governing organization. In this respect, it is like a government. The Association has the statutory responsibility to administer and enforce the Engineering Profession Act on behalf of the government and people of the Province of Manitoba. Because of the self-governing nature of the Association, this responsibility is shared by each of us. The Association cannot be governed properly or well if we disdain to participate.

On October 24th, let's give force to our opinions by voting in the Association's election; by attending its annual business meeting; and by participating in, contributing to, and being further enlightened by the dialogue between Professor Stevenson and our fellow professional engineers. □



October 1986

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W. B. Mackenzie, P. Eng.

The Manitoba Professional Engineer is published under the direction of the Publication Committee

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PRODUCTION MANAGER

Vera Toth

Opinions expressed are not necessarily those held by the A.P.E.M. or the Council of the A.P.E.M.

67TH ANNUAL GENERAL MEETING

OCTOBER 24, 1986

HOLIDAY INN DOWNTOWN

AGENDA

- 8:30 a.m. Registration
- 9:00 a.m. Official Opening by President
- Notice of Meeting
- Introduction of Head Table
- Minutes of Annual Meeting of October 18, 1985
- Declaration of Councillors Elected
- Auditor's Report and Appointment of Auditors
- 1986/87 Budget
- Nominating Committee Appointments
- Recommended Salary Schedule
- By-law Amendments
- Reports
- Greetings from C.C.P.E. and Other Associations
- Coffee Break
- PRESENTATION AND DISCUSSION**
- "Professionalism and The Employee Engineer"*
- 11:30 a.m. Reception
- 12:30 p.m. Awards Luncheon
- Presentation of Awards
- 2:00 p.m. Resolutions

(BRING THIS AGENDA TO THE MEETING)

Endowment Fund

(continued from page 1)

"old hands", professors Glenn Morris and Ray Chant, to head up the endowment fund campaign. It is to begin in September with a canvas of the Faculty's academic and support staff. Next, the current students will be challenged to conduct fundraising events and activities.

In October, the campaign will "go

public", with an approach to the more than five thousand alumni. Several promotional events will be held in Winnipeg and other parts of Canada. Finally, engineering-related firms throughout Canada will be approached. Potential donors will be asked to make a five-year pledge to the fund.

An Engineering Endowment Fund Newsletter can be obtained by contacting The Engineering Endowment Fund at (204) 474-9808. □

The Year in Retrospect: In a Word. . . .

previous President's Messages this year, as our General Manager has frequently and quite properly reminded me, I have perhaps tended to lecture Manitoba's professional engineers on a variety of principles.

The first of those previous messages, incidentally, called for volunteers for our Association's committees. The response was gratifying, and at this point I would like to thank those who responded and all those, whether recently recruited or previously involved, who bring diligence, energy, thought, vigour, intelligence and time to the duties and assignments of our Boards, Standing Committees and ad hoc committees. Virtually every paragraph in this article summarizes results obtained through hard work by Councillors, committee chairpersons and members, other Association members, and staff. When you see the paragraph(s) about your contribution, here or in the separate committee reports, I want you to remember that the sincere appreciation of our Association is due to you and is hereby, albeit briefly and inadequately, expressed. You know who you are!

The purpose of this month's message differs from that of those previous "editorials," and is to provide for your information a summary, in no particular order, of Council's year and of the status of various ongoing issues and professional subjects. I hope that this can be done without intruding too far into the realm of the various committee reports.

The provision of monthly comprehensive "computerized" financial statements to the Councillors has enhanced their understanding of the financial affairs and the activities of the Association, and has thereby contributed to more effective decision making.

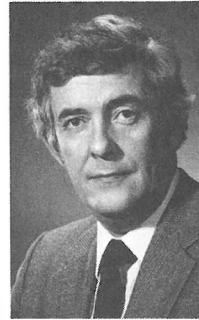
The 1986-87 budget recently approved by Council provides for a number of significant operational improvements without increasing the annual fee which we individually will pay. The intended contribution to reserves is less than the actual contribution in any recent year.

"...I would like to thank those who bring diligence, energy, thought, vigour, intelligence and time to the duties and assignments..."

The Ad Hoc Committee on Act Enforcement recommended an additional staff member for our Association. Provision has accordingly been made by Council in the 1986/87 budget. I personally consider that it will then be most productive and appropriate to concentrate on the "reserved practice" (as opposed to the "reserved title") aspect of enforcement, with emphasis on engineering work carried out by or on behalf of local municipal governments. The work of the ad-

President's Message

E.W.J. Clarke, P.Eng.



ditional staff person will not be limited to enforcement.

A scholarship program for engineering students at the University of Manitoba was established, and the 1986/87 budget provides for its endowment.

Our publication, *The Manitoba Professional Engineer*, has been increased in size and changed in format, and our Bulletin Committee has become the Publication Committee. The slight additional expense for the revisions to the publication has been money well spent in my view and in the opinion of virtually every professional engineer with whom I have discussed these changes and the resulting publication.

Regarding the 1987 engineering centennial, our Association has contributed \$10,000 for its principal centennial project, a diorama at what I believe will still be known for a while yet as the Museum of Man and Nature. As well, an Ad Hoc Committee is now investigating the province's day-park plans for the "Old Pinawa" site in order to determine what action might be taken by our Association to ensure recognition of "Old Pinawa" as a historical engineering site.

Approximately one year ago, A.P.E.M. Council formed a Committee on Safety in Engineering Practice — to address a subject matter considered by the Practice and Ethics Committee to be distinct from the complaints and discipline process. The function of the new committee is to review allegedly or potentially unsafe engineering practices, and to make recommendations to Council on remedies when necessary. Committee and Council are still on a learning curve, and are grappling with issues such as: how much publicity outside our profession is appropriate on such matters; to what extent can the committee function without unduly overlapping the mandates of technical societies and code-setting organizations; and what responsibility does our profession have for attempting to bring about retroactive remedy of problems created by past practices. Council and the committee have had some difficulty (which I do not wish to exaggerate) in agreeing on these matters. The energy, concern, and commitment devoted to this important topic by the Safety in Engineering Practice Committee is impressive and appreciated.

The Association is considering a concept

of relocating from leased conventional downtown office space to a future free-standing building to be jointly-owned with a number of other professional associations. This proposal is as yet very tentative and preliminary, and the joint professional building obviously may never materialize.

The Association is making very poor progress in deciding whether or not to implement a system for licensing specialists and/or consultants, or for regulating group practice. Our related sub-committee is, to put it bluntly, deadlocked on the issue. It will be interesting to see what national guidelines might emerge in this area if C.C.P.E. addresses it as has been recommended by their Permanent Staff Officers group.

As of August, our Association had not yet finalized all documentation needed to proceed with the "Log of Experience" process which replaces the discontinued mentor program for engineering graduates working outside traditional engineering settings. The difficulty is with respect to defining meaningful (and better than semantic) distinctions bet-

"Committee and Council are still on a learning curve, and are grappling with issues..."

ween "engineering work" which represents qualifying experience toward registration on the one hand, and on the other hand, the "practice of engineering" which legally cannot be conducted until one is registered.

As President, I have tried to pay close attention to the recommendations of the 1983/84 Past Presidents' Committee and to ensure that the goals and principles they set forth are not overlooked.

During the course of the year, I have called Executive Committee meetings on a "as required" basis. The cooperation of the other members of the committee regarding this erratic schedule (and the length of the meetings!) has been excellent. It would have been fairer to them, and probably more effective, to have scheduled such meetings on a more regular basis. I recommend a change in this regard to my successor. Regular meetings create implicit deadlines and incentives to complete needed material and reports; if the call of the meeting is deferred awaiting the completion of the material, the material will be completed less promptly.

The Executive Committee sees a need for our Association to develop new policy or more explicit and complete policy, or to more clearly articulate and confirm existing policies, in a number of areas such as: geologist members; the Association's financial practices; eligibility for non-practising membership (a subject debated quite heatedly by Council early this year!); out-of-province members; principles of enforcement

(continued on page 9)

COMMITTEE REPORTS COMMITTEE REPORTS COMMITTEE REPORTS COMMITTEE REPORTS

ACT ENFORCEMENT

Bryan Norrie, *Chairman*

MEMBERS:

E.W.J. Clarke
Dave Cross
Fred Jost
Bill Mackenzie
Bill Newton

The purpose of the formation of this committee was to investigate the extent of the violations of the Engineering Profession Act in the Province of Manitoba.

The Act governs the members of the Association; those who do not carry out the practise of engineering in compliance with the code of ethics can be disciplined under By-Law No. 45. (the discipline By-Law). Further, members of the general public who practise engineering illegally, and persons who employ persons whom they know neither to be a member or a licensee of the Association to do any work that requires the services of a professional engineer, can be prosecuted under Clause 30 of the Act.

Following investigation, the Committee felt that there was a sufficient number of people doing engineering work in the Province of Manitoba who are either not qualified, or who are not registered to the Association and hence, the Committee recommended that Council address the problem of Act Enforcement, in a letter to Council of February 27th, 1986.

At its March meeting, Council passed a motion accepting this Committee's recommendation and asked that the Ad Hoc Committee then develop specific recommendations for Council regarding the mechanisms and procedures necessary to correct the situation. In a further meeting of the Committee, various alternatives were discussed with the following recommendations being put forth.

The Committee determined that violations could be incurred and that the violators could essentially be broken into three groups, namely as follows:

- A. Non-registered engineers — graduate engineers technically qualified but who are not registered with the Association.
- B. Technologists — graduates from an engineering technology school, who may or may not be registered with MANSCEIT.
- C. Non-graduate engineers. This latter group includes persons who, by association with technical items, have developed a familiarity with, and assume an expertise in various fields which may or may not be technically sound.

As the results of any of these groups could

have an impact on the safety and economic well being of the general public, associated with poor or lack of proper engineering, the image of the profession could be tarnished, reflecting on the Association.

In the recommendation put to Council it was suggested that a senior experienced engineer be hired as an Act Enforcement officer on a part time basis for a term period, and that later a Deputy Registrar be employed to continue with the job of Act Enforcement Officer while at the same time learning the operations and duties of the Registrar. It was also agreed that a Committee be appointed to assist the Act Enforcement Officer with such a committee doing initial investigations and reporting serious offences to Council if further action is deemed necessary. It was also suggested that the Registrar would continue to make initial contact with individuals who are practising engineering illegally, pointing out that they are in violation of the Engineering Profession Act with the hope that the individual will himself correct the situation.

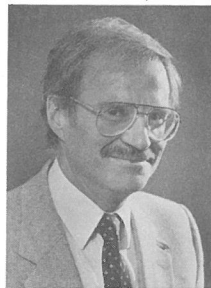
In making the first recommendation to Council, the Committee recognized that a

considerable financial burden would be placed on the Association as a result. Nevertheless, in the opinion of this Committee, it was felt that the purpose of registration was jeopardized if, in fact, some action were not taken.

An investigation of the approach of other provincial associations to this question was conducted and it was found that most other provinces have addressed this problem, some with full time Enforcement personnel, and the subsequent substantial financial commitments. Since the degree of violations have not specifically been determined within the Province of Manitoba, no specific amount was identified as being the additional financial burden to the Association if this Committee's recommendations were followed. However, Council was advised that should the recommendations be followed, this may have an effect on future fee structures.

At its April meeting, Council accepted our final report, and moved to have the Executive Committee study the report for further definition, recommendation, and budget considerations. □

BOARD OF EXAMINERS

W.L. Pawlikewich, *Chairman*

MEMBERS

C.D. Anderson
D.T. Anderson
A. Baracos
S. Balakrishnan
E. Bridges
J.R. Cahoon
E.W.J. Clarke

J.M. Dobrovlny
A.D. Gerrard
F.R. Kaita
W.B. Mackenzie
R.W. Menzies
F. Penkava
A.B. Sparling

There was a significant drop in the number of new applicants this year, twenty-seven, as opposed to forty in 1985 and forty-five in 1984. Six candidates were deemed academically qualified, eight were given confirmatory exams, while ten had an examination program assigned. Two Manitoba graduates in Industrial Engineering and one in Computer Engineering will be given oral examinations; their programs were not accredited by the Canadian Accreditation Board.

Three cases were reviewed after examinations and all applicants were found academically qualified.

Thirteen cases were reconsidered for various reasons. Of these, four candidates were qualified, two were given confirmatory exams, five assigned a program, one assessment was unchanged, and alternative univer-

sity courses were approved for the remaining one.

Three applicants appealed their assessments. The assessments of two were not changed and the other was determined to be qualified.

The Board prepared procedures for handling graduates from the Computer and Industrial Engineering programs of the University of Manitoba.

Other items handled included a review of correspondence courses offered by the University of Toronto and a special meeting in July to make recommendations on three C.C.P.E. reports on the Requirements for Entry to the Profession. A sub-committee of the Board met to go over the C.C.P.E. syllabus in computer engineering and prepared a report.

W.B. Mackenzie, Registrar, J. McKir and every member of the Board exerted a great deal of effort and time in these matters and for this I thank them. □

COMMITTEE REPORTS COMMITTEE REPORTS COMMITTEE REPORTS COMMITTEE REPORTS

ADMISSIONS
REVIEW BOARD

MEMBERS

J.E. Barnes
C.R. Bouskill
G.E. Laliberté
W.B. Mackenzie
W.M.A. McDonald
W.L. Pawlikewich

E.A. Speers, *Chairman*

The purpose of the Admissions Review Board (ARB) is to determine if applicants referred to the Board meet standards of experience, ethics and education as required by the Act and by Council.

The ARB met many times during the year to consider the qualifications of ten applicants. Five of the applicant's qualifications were considered satisfactory for the Board to

recommend to Council that they be accepted for registration. Two of those accepted were interviewed by sub-committees at their place of business. Members at large on the sub-committees were: D. Waldman, O. Hawalshka, G.S. Sagi and F.A. Jost.

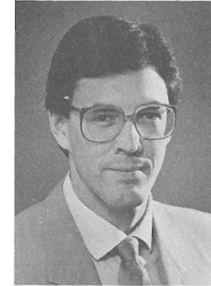
In addition to examining applicant's qualifications the ARB met several times on discussions of the terms of reference for the Board and the setting up of guidelines for assessment of experience requirements.

An Ad Hoc Committee was set up consisting of the Registrar, C.R. Bouskill, and R.A. Johnson to review the log of experience designed for applicants who are not/will not be working under the direct supervision of a professional engineer.

In addition discussions were held by the Board on the relationship between the practice of engineering and the performance of engineering work.

The Board could not have operated as efficiently without the assistance of the office staff, in particular, Bill Mackenzie and Joan McKinley, whose years of experience and excellent support made our tasks all the easier.

PUBLICATION

K.J. Hearson,
Chairman

MEMBERS

B. Bird
J.W. Bogan
E.W.J. Clarke
D.E. Cross
V.L. Dutton
L. Ganetsky
F.S. Gira
P. Gordon
A. Kusiak
W.B. Mackenzie
J. Markowsky
W.G. McKay
R. Menon
A.D. Murchie
D.N. Spangelo

Changes, changes, changes. That, in a nutshell describes this past year for the Bulletin, no strike that, Publication Committee. New committee name, new format, the introduction of colour, a pronounced attempt to change the content, new masthead, new production manager, new committee members; the list of changes is long.

The Publication Committee, members of which are listed in every issue on page 2, has attempted to produce thought-provoking, informative and entertaining issues; some of the changes listed above are a result of that objective. The committee hopes it is succeeding in its attempts.

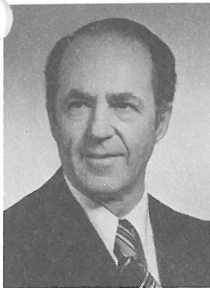
Members of the committee who have resigned this past year include Bob Brown, John Markowsky, John Bachmann, Vic Thielman, Ken Webb, Jim MacKenzie, Bruce Bird, and Joe Lucas. John Markowsky and Bruce Bird remain as correspondents. The efforts of these past-members are greatly appreciated. Special mention must be made of John Bachmann, who initiated and provided vital guidance for many of the changes our publication has undergone.

Both our production managers in 1985/86 Lynne Smith and Sharon Watson have moved on. Lynne is now Executive Director at the Manitoba Bar Association and Sharon Watson has begun a Dental Assistant course at Red River Community College. The committee will miss their valued contribution and efforts. Our new Production Manager and A.P.E.M. staff member is Vera Toth.

Several new members have joined our committee: Vern Dutton, Roger Kane, Paul Gordon, Andrew Kusiak and Bill McKay. We have already seen what excellent work they can produce.

The committee looks forward to the next year, to the hard work of producing another six issues, and to continued change to produce the best possible communication tool for our members. □

PRACTICE AND ETHICS



MEMBERS

C.R. Bouskill
D.A.J. Ennis
D.R. Grimes
K. Hallson
F.A. Jost
E.F. MacKenzie
W.M.A. McDonald
W.R. McQuade
R.H. Russell
R.E. Scouten

F.M. Fowler, *Chairman*

Since the annual meeting held in October 1985, the committee has met on four occasions as our work load was lighter than it has been for some time. However, there were several sub-committee meetings to deal with the questions and problems that did come before the committee.

Our investigation into a construction accident showed that there was no breach of the Code of Ethics but the circumstances surrounding the accident points out the weakness in current and accepted procedures dealing with sub-contractors, shop drawings and onsite construction inspection. It is hoped that the Safety Committee, who are examining some of these problems can bring forth recommendations to improve the climate for better liaison between all parties involved in the construction industry.

Last year's report referred to a hearing being conducted in another province on a

complaint against a Manitoba licensee in connection with the structural adequacy of major Winnipeg building. We have yet to receive a response to our requests for information even though their hearing was completed early this year. We continue to press for better communications on this matter.

The committee considered a complaint concerning the modifications of foundation plans of a private residence by one of our members. Although no breach of the Code of Ethics was shown it was decided that the member in question had used poor judgement and he was so advised.

Another matter referred to our committee is now before the courts and our most recent advice is that it will not be heard in court for at least a year. The practice of the Association is to take no action while a matter is before the courts so this problem will be held in abeyance for the time being. This is one reason why, at times our committee appears to act so slowly. We have recently received formal complaints against two of our members and these matters will be actively pursued in the immediate future.

As Chairman I would like to thank the members of the committee, all of whom have worked eagerly and diligently over the last year and have made the position of Chairman a pleasant and rewarding experience. □

COMMITTEE REPORTS COMMITTEE REPORTS COMMITTEE REPORTS COMMITTEE REPORTS

AWARDS

R.R. Foster, *Chairman*

MEMBERS

L.A. Bateman
W.H. Finnbogason
F.M. Fowler
D.R. Grimes
R.A. Johnson
R.A. Kane
W.R. Newton
G.A. Pratt

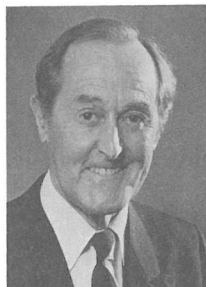
The Committee held three meetings during the past year.

The Committee recommended to Council and Council approved, that the Committee's Terms of Reference be revised to include the recommendation of candidates to Council for the C.C.P.E. Awards.

The Committee recommended to Council one candidate for the A.P.E.M. Outstanding Service Award, two candidates for the A.P.E.M. Merit Award, one candidate for the A.P.E.M. Life Membership Award and one candidate for the C.C.P.E. Gold Medal Award. Council approved all of these recommendations. The A.P.E.M. Awards will be presented at the forthcoming A.P.E.M. Annual General Meeting. The C.C.P.E. Gold Medal Award recipient is determined by C.C.P.E. from candidates submitted by the Provincial Associations and the award is presented at the C.C.P.E. semi-annual meeting in Ottawa in November.

The Committee wishes to thank J.C. McKinley and W.B. Mackenzie for their assistance in the Committee's deliberations.

CONSULTING ENGINEERS

D. Whittaker, *Chairman*

MEMBERS

E.W.J. Clarke
H. Haak
R.C. Isaak
J. Klein
W.B. Mackenzie
J.G. Malus
R. Morrison
A. Penman
B.J. Rossen
D.K. Strang
E. Weiszmann

Two items occupied most of the Committee's attention this year. Both are close to completion.

The sub-committee studying the question of the advisability of group practice continued its work and submitted an interim

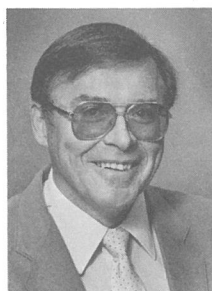
report for discussion. Currently their final report is being presented to the Committee for its consideration. This will be followed by the Committee's report to Council.

The second major item has been a review of the Guide for the Engagement of Consulting Engineers. Proposed revisions have been discussed and are being prepared for presentation to Council. Messrs. Morrison and Strang have done most of the research for the review of the Guide.

Following Joan McKinley's appointment as Administrative Officer, Donna Bilodeau has been recording our meetings — not an easy task. Mrs. McKinley has continued to be very involved as had Mr. Mackenzie.

Many thanks to them and to all the office staff. It is always very pleasant to work with them. □

SOCIAL AND ANNUAL GENERAL MEETING

R.R. McKibbin, *Chairman*

MEMBERS

E.W.J. Clarke
Ian G. Hogg
T. Holden
W.B. Mackenzie
B.P. Menlove
J.D. Miller
J.A. Oleszkiewicz
A.E. Speers

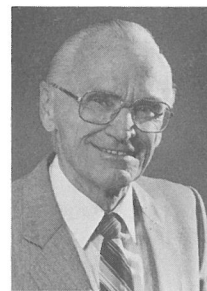
The Spring Cabaret, held at the Vasa Lund on March 14, 1986, was attended by approximately 125 engineers and guests. A generous, delicious smorgasbord (with liberal libation) was followed by a light, entertaining musical medley presented by the Sonatrice Singers from Carman. The informal format (no speeches!) was conducive to a relaxed evening, enjoyed by all.

On behalf of Council, the Committee has been actively involved in planning the Committee Appreciation Night, which takes place the Thursday night prior to the General Meeting. This recognition evening is again in the format of a "Wine and Cheese" and gives Council an opportunity to thank the committee members who work on behalf of the Association.

The Committee has once more assisted the President and the very capable Association staff in planning your Annual General Meeting. Every effort is made to ensure that all details have been taken care of, thereby insuring a successful meeting.

A special thanks to Ted Speers, who so ably served as chairman pro tem until my appointment in April, 1986. □

SPORTS

W.L. Saunders, *Chairman*

MEMBERS

J.A.E. Belagus
E.W.J. Clarke
P.C. Cohoe
W.B. Mackenzie
B.J. Mather
D.N. Sharpe
D. Zelich

The committee held five meetings to conduct the planning and holding of two events:

1. The curling bonspiel on January 14, 1986 at the Highlander Curling Club. Twenty-four teams participated. A competitive format was used, composed of eight events providing a minimum total of 14 ends and a maximum total of 24 ends of curling. The President's Cup was won by the team of John Bell, Harold Wilson, Keith Walker and Steve Kormilo. The cup along with four miniature trophies was presented by our Association President Ted Clarke. Twelve more miniature trophies and a total of 48 prizes completed the winnings. A hot mid-day cafeteria style meal was served.

2. The golf tournament was held at the Saint Boniface Golf Club on June 16, 1986, in perfect golfing weather at a fee of \$28.00 per person. The interest level was high, resulting in 134 golfers with only two no-shows out of 136 originally registered. Each player was given a golf ball and a package of tees to launch their game with. The Landon Trophy signifying the low gross score was won by Bruce Elliott with an 82. The Sullivan Trophy signifying the low net score was won by John Bockstael with a 61. Both trophies were presented by our President Ted Clarke. A total of 18 prizes were presented for a variety of achievements, plus a golf ball to those getting birdies. A combination hot and cold buffet dinner was served.

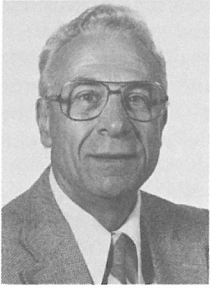
Both the Landon and Sullivan golfing trophies for one reason or another needed refurbishing, which has been done, mainly due to action taken by our Association Registrar Bill Mackenzie.

All Sports Committee activities are financially self-supporting and in fact generate a small cash surplus as was the case this year. This, to a significant degree is made possible by the generous sponsorship of a number of companies who were recognized at each event and were subsequently sent thank you letters.

Finally I want to thank the members of this year's committee, along with Bill Mackenzie, our Association Manager plus secretaries Lynne Smith and Sharon Watson, for their much needed and appreciated contributions.

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PROFESSIONAL DEVELOPMENT

E.J. Klein, *Chairman*

MEMBERS

G.S. Baines
E.W.J. Clarke
M.D. Clarke
E.F. Glass
J.G. Hildebrandt
E. Holowick

B.D. MacBride
W.B. Mackenze
T.L. Maguire
A.H. Soliman
R.M. Stokes
N.B. Ulyatt
S.L. Ursel

The Professional Development Committee has continued work on the professional development program requirements and possible implementation methodologies. The work includes the definition of possible components of a professional development program, methods for the presentation of that program to the membership, and methods of monitoring the program for functional effectiveness.

Professional development activities in other jurisdictions and within professional institutes are being reviewed. Pertinent examples are the Institute of Electrical and Electronic Engineers (IEEE) and the Association for Media-based Continuing Education for Engineers Inc. (AMCEE). A number of sources are available for possible input to our professional development program. These include:

- (i) video tape courses at the graduate and post-graduate levels, eg. AMCEE and Integrated Computer Systems
- (ii) professional institute courses via correspondence (IEEE) and via satellite transmission with a possible teleconferencing capability (IEEE and AMCEE)
- (iii) local university credit courses at the

graduate level, eg. M.Eng.; and,

(iv) open forums or seminars on related subjects including the professional development program itself.

Two Professional Development Forums have been held to provide an information exchange between the membership and the professional development committee. It is hoped that we will have local industry participation in the future. A greater attendance of our members would increase the effectiveness of these forums.

It should be noted that, in association with Professors Kristjanson and Bains of Continuing Education at the University of Manitoba, the shared use of a satellite transmission facility on campus is being investigated. Program participation cost would be based on the number of participants, i.e. the degree of utilization.

Recognition for their significant participation in time and contribution to the committee's accomplishments of the past year, is accorded to past chairman John Bachmann and current committee members, to liaison Councillor Len Bateman, and Prof. Guru Bains from the University of Manitoba. Sharon Watson is to be commended for providing excellent service as the recording secretary for the committee. □

SALARY SCHEDULE

J.M. Symonds, *Chairman*

MEMBERS

C.E. Anderson
B.G. Bettess
D.G. Chapman
E.W.J. Clarke
C.E. Ireland
B.F. Klaponski
W.B. Mackenzie
E.G. Parker
S.H. Rizkalla

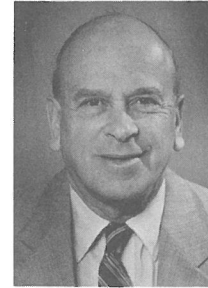
was asked by the Committee for a definition of the purpose of the Committee and the salary schedule that it produces. In response to the Council's direction, the salary schedule for 1987 is a reflection of reality gained from the employer's salary survey combined with an educated guess as to the impact of the economy over the next 12 months plus the influence of salaries being paid in the two adjoining provinces. In this way, it is hoped that the curve will be more meaningful and useful to engineers and employers alike.

My thanks to the Committee members and to Joan McKinley and Donna Bilodeau who assisted the Committee with its work at the Association office. I would also like to acknowledge the long tenure and dedication of Nick Fedorchuk who resigned as Committee Chairman during the year. □

During 1986, the Salary Schedule Committee carried out a salary survey of Manitoba engineering employers. The results were used to create the recommended salary schedule for 1 July 1987.

This year, however, the A.P.E.M. Council

STAMPING OF SHOP DRAWINGS

E. Weismann, *Chairman*

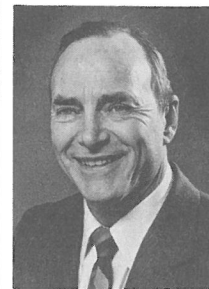
MEMBERS

V.W. Becker
E.W.J. Clarke
K.M. Franklin
B.W. Gulay
W.B. Mackenzie
W.R. McQuade
D.L.T. Oakes
H. Penner
R.L. Steele
G.W. Winch

The Ad Hoc Committee on the Stamping of Shop Drawings met seven times since the end of October 1985 to the end of August 1986. It agreed on the terms of reference of the Ad Hoc Committee. It was also agreed, that it should be permissible to qualify an engineering seal to limit its application to a portion of the project. However, the basic question, who should stamp a shop drawing, the Engineer of the steel company who prepares the shop drawing, or the Engineer of Record who is responsible for the entire structure, or perhaps both Engineers — is still under consideration. A Sub-Committee was formed to prepare a draft report for discussion on the progress of the committee's deliberations.

I wish to take this opportunity to thank the members of the Committee and the staff of the Association for their enthusiastic participation in the work of the Ad Hoc Committee. □

REGISTRAR

W.B. Mackenzie, *Registrar*

The registrar wears many hats. He is, among other things the manager of the Association's business affairs. He is the Association secretary and the Association treasurer. He is a member of virtually every Association committee. He is a funnel for information between members, council and committees. He is a sounding board for enquiries from the public and from members. He is a confidant and advisor to the president and to the executive committee and to many members

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who have concerns which they may wish to discuss in confidence.

And so it would seem that the registrar's report of the year's activities and accomplishments should be detailed and far-reaching. However, the reporting of most of these activities and accomplishments falls within the purview of the president and the various committee chairmen. Their reports will be found elsewhere in this issue.

As treasurer, I can report on the financial health of the Association. It is excellent. Our financial year-end statements are in hand and they show that the Association's reserves have increased over \$100,000 in the last fiscal year. This was accomplished without an increase in annual membership fees. And, as the President has pointed out in his annual report, there will be no increase in annual membership fees in 1987.

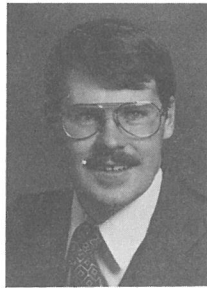
Some of our increase in income has come about because of an increase in the Association membership. As registrar I can report that, as of July 31/86, our membership stood at 2,983 members. This is an increase of about 5% in the last year. Exact statistics are:

Members registered,		
July 31, 1985	2,849	
Reinstated to membership ..	16	
New registrations	137	
Transfers-in	57	+ 210
		3,059
Members de-registered	28	
Members deceased	8	
Resignations	34	
Transfers-out	6	-76
Members registered		
July 31, 1986		<u>2,983</u>

During the past year I have had excellent support from the staff. I am grateful and appreciative of the dedication and loyalty of all of them. Joan McKinley, Elaine Ryan, Donna Bilodeau, Sharon Watson, Lynne Smith — they have all performed day in and day out in the interests of the Association and the membership is fortunate to have people of such high caliber working on their behalf. Lynne Smith has left us to become executive director of the Manitoba Bar Association and Sharon Watson has returned to school to further her education.

And I am appreciative of the opportunities I have had to work with the many volunteer members of council and committees. These people have given unstintingly of their time and their talents in order that the Association can function and carry out its mandates as laid down in the Engineering Profession Act.

SAFETY IN ENGINEERING PRACTICE



- MEMBERS**
 E.W.J. Clarke
 A.O. Dyregrov
 R.E. Gottfred
 B.W. Gulay
 W.J. Hodgins
 W.B. Mackenzie
 J. Martin
 J.V. Weiszmann
 L.P. Williams

F.A. Roberts, *Chairman*
 The Safety in Engineering Practice Committee has operated for the first full year as a separate committee of council.

The function of the Committee is to study safety-related problems in engineering practice and to pass on to members information which in a "pre-emptive" manner will help them avoid similar problems. The Committee holds monthly meetings of the full Committee plus meetings of sub-committees formed to study individual problems. Four sub-committees have operated this year. Our first sub-committee reported to council and the membership on problems with existing glue laminated wood structures.

Our Committee has dealt with many philosophical issues, particularly the Engineer's responsibility in safety-related matters and the role of this Association and the Committee in dealing with them. Council and Committee have both spent a great deal of time developing a working relationship and establishing a method of operating to deal with matters which affect and require the co-operation of the public through jurisdictional authorities.

Members who may become aware of any unsafe engineering practice should pass on such information to the Committee or the Registrar. Inquiries or submissions will be dealt with in confidence where requested.

I would like to thank Guy Bernuy, P.Eng. and John Frye, P.Eng. for their expert advice and assistance in connection with an ongoing industry related investigation.

Finally, on behalf of the Committee I wish to thank Bill Mackenzie our Registrar, Bill Newton our Liaison Councillor, Lynne Smith and Donna Bilodeau, Recording Secretaries for their generous assistance during the year.

LEGISLATION



- MEMBERS**
 R.B. Blackman
 E.W.J. Clarke
 D.W. Gunter
 J.S. Hicks
 B.D. MacBride
 W.B. Mackenzie
 D.J. McIntosh

E.E. Lach, *Chairman*

The purpose of this Committee is to make a continuing study of the Engineering Profession Act and the By-Laws of the Association.

To effect a continuing study of the Engineering Profession Act and the By-Laws of the Association, the Committee may make a comparison of the Manitoba Act with corresponding Acts of the other provinces, study changes in legislation amending the Engineering Profession Acts of other provinces, and study recommendations for changes in the Manitoba Act or Association By-Laws referred to the Committee by Council or by other members of the Association.

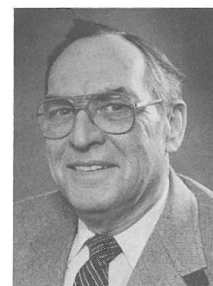
The Committee met three times during 1986 and sub-committees also prepared reports to address the following assignment by Council.

Council requested the Legislation Committee assess the adequacy and appropriate-

ness of Bourinot's Rules of Order for Association purposes and report to Council. A report to Council on April 11, 1986, recommended that By-Law 35, Procedures, be amended by striking out the words "Bourinot's Rules of Order" and substituting the words "Robert's Rules of Order".

I wish to thank the Committee members for their very active involvement and also express the Committees' appreciation for the support provided by W.B. Mackenzie, P. Eng., General Manager and Registrar, Sharon Watson, Secretary and also to F. Jost, P. Eng., for his written submission and consultation. □

ETHICAL USE OF THE SEAL



- MEMBERS**
 S. Block
 J.M. Fulton
 E.A. Speers
 R.M. Stokes
 D. Whittaker

W.R. Newton, *Chairman*

By a report dated March 6th, 1985, the Practice and Ethic's Committee indicated that:

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"There is sufficient doubt as to precisely when the seal should or may be applied and sufficient confusion as to which engineer should be applying his seal, to warrant publication by Council of a statement defining the intent of the Act in respect to the use of the Seal".

As a consequence of the above, the Committee recommended "That Council establish an Ad Hoc Committee to develop definitive guidelines regarding the Use of the Seal, for ultimate approval and publication by Council. . ."

At its meeting of April 8th, 1985, Council established the Ad Hoc Committee-Engineering Seal with instruction to develop definitive guidelines for the Use of the Seal.

The Committee found the problem of the Use of the Seal to be much more complex than at first perceived and, as witnessed by the large attendance at the Breakfast Meeting on the subject, also a matter of wide concern to a major cross-section of the membership.

The Committee has now completed a draft report with its proposed guidelines. This report is currently undergoing review and editing and it is hoped that the final report will be presented to council prior to the Annual Meeting.

The Committee wishes to express its appreciation to the office staff for its assistance during the past year and in particular to Bill Mackenzie for his sturdy guidance and wise counsel and to Lynne Smith and Donna Bilodeau, both of whom somehow managed to translate committee discussions into meaningful minutes. □

CONSULTING ENGINEER'S SUB-COMMITTEE ON GROUP PRACTICE

In the past year the Subcommittee, chaired by J.G. Malus, has examined current practices of other provincial associations with respect to group practice licensing.

Although some slight variations in the administration of group licensing were found in several of the associations, the essential discovery is that these associations are effective in controlling engineering groups, as well as the individuals in such groups.

A legal opinion from association counsel was obtained with respect to the Engineering Profession Act. Counsel outlined the amendments that would be necessary for the implementation and regulation of group prac-

tice licensing.

Communications received from the Association of Consulting Engineers of Manitoba, as well as our Practice and Ethics Committee contributed to the Subcommittee's discussions. For a considerable length of time, the Subcommittee continued to be divided on all the issues pertaining to the benefits of group practice licensing. Finally after coming to agreement on two basic recommendations, an interim report to the Consulting Engineer's Committee was issued July 10, 1986.

This interim report conditionally recommended the need for group practice licensing as a means of protecting the public. Identified in the report were several issues that apply to consulting firms, and have to be addressed carefully. □

Engineering Graduate Members Registered in August and September 1986

K.L. Johnson

K.L. Kent

Congratulations to F. Murray and R. Ambrosie who achieved 100% on the Professional Practice Examination. □

Year in Retrospect (continued from page 3)

of the Act; professional liability; right to title for engineering technologists; employee engineers; group practice; consultant and specialist licensing; professional development; continuing competence; service to members; regionalism; public relations; and interaction with government. In a number of these areas, work by the Executive Committee members and/or by our other committees is well advanced, and should continue.

I have greatly appreciated the opportunity to travel on our Association's behalf and to attend the meetings of the C.C.P.E. and other provincial associations. Such visits contribute significantly to understanding, and to trying to attain, the professional goals of A.P.E.M.

Mention of C.C.P.E. gives the opportunity to mention the three major reports now being dealt with by C.C.P.E.: the Evans Report (Education and Professional Affairs Review Committee); the Taylor Report (Committee on Entry to the Profession by Examinations); and the Dupuis Report (Committee to consider Requirements having a bearing on Entry to the Profession). Our Association has been able to respond effectively and promptly on these matters due in large part to considerable and intelligent efforts by our Board of Examiners.

At the close of his term, our previous president commented that experience is unfortunately not fully transferable. However, to the extent that it is, we can learn from C.C.P.E. and other provincial and territorial associations, and I have tried to com-

municate as much insight and information as possible on what is happening elsewhere in Canada to other members of Council upon returning from each such trip.

The extent to which experience on Council and as President is not transferable points out the value to our Association of having a committed, knowledgeable and energetic Registrar and General Manager, to ensure continuity from year to year; to enhance inter- and especially intra-Association dialogue; and, along with our other staff members, to tend diligently, unstintingly, and effectively to the multiplicity of activities which ensure the success of this Association.

I'd like to close by repeating my sincere thanks to our Association's staff members, past and present, with whom I've worked; to the 1985/86 Council, including elected and appointed Councillors and our Past President / C.C.P.E. Director; and to all Committee and Board chairpersons, members, and other Association volunteers. The goodwill and cooperation of these fine groups have made serving as your President a worthwhile experience. □

**With deep regret, the
Association records
the passing of:
E.G. BRUNSDON, P. Eng.
G.H. WELDON, P. Eng.
E.A.F. WELTER, P. Eng.**

New Members Registered at August and September 1986 Council Meetings

J.A. Bekavac, P. Eng.
R.L.N. Brezden, P. Eng.
H.G. Cherceo, P. Eng.
M.N. Fedeniuk, P. Eng.
G.C. Fiorentino, P. Eng.
D.J. Kramble, P. Eng.
A.J. Lauder, P. Eng.
P.R.P. Smith, P. Eng.
B.K. Wall, P. Eng.
W.C.D. DeGagne, P. Eng.
E.T. Linney, P. Eng.
K.G. Oliver, P. Eng.
R.W. Ambrosie, P. Eng.
J.M. Bouchart, P. Eng.
J.R. Carey, P. Eng.
L.G. Crowe, P. Eng.
B.C. Danielson, P. Eng.
R.D. Frate, P. Eng.
R.R. Kjaldgaard, P. Eng.
C.W. Vince, P. Eng.
S.G.J. Watt, P. Eng.
M.A. Weekes, P. Eng.
I.A. Nattress, P. Eng.
L.H. Arendt, P. Eng.
J.G. Bramer, P. Eng.
T. Braun, P. Eng.
P.J. Healy, P. Eng.
R.L. Mousseau, P. Eng.
G.B. Neilson, P. Eng.
R.J. Osiowy, P. Eng.
D.T. Paradis, P. Eng.
G.T. Smith, P. Eng.
E.A. Wolowich, P. Eng.

News from Other Associations

The Ontario Association is deleting the Specialist designation program and looking at deleting the Consulting Engineer designation as well. However, the use of the title consulting engineer would be retained with qualifications set by Council.

Former Ontario premier Frank Miller, P. Eng., told the annual general meeting audience of an Ontario Association chapter that **engineers seldom last in politics**. "Politics deals with finding perceived problems and making perceived solutions". On the other hand, Miller says "engineers make observations, find the problem, solve it and then go on."

Several members of the Northwest Territories Association have travelled to the Soviet Union as part of the **Canada/USSR Arctic Science Exchange Program**. The program en-

courages study and exchange of scientific and engineering information in northern construction.

The Alberta Association will be issuing a "Professional Authoring" publication shortly. **It provides guidance to members in the use of seals.**

The Nova Scotia Association is proposing the formation of a work "pool" of young engineers, overseen by an Employment Opportunities Committee of their Association. The members of the pool would be available to engineering firms on a part-time basis or temporary basis during peak periods of activity. The profession would fulfill its obligations to train young engineers as well as meet its own needs during overload situations.

In an effort to improve the **Ontario Legislature's understanding** of Ontario's Engineering

Association and the profession it represents, copies of the Association's publication, **Engineering Dimensions**, are now sent to all members of the provincial parliament.

A trend toward **lower quality and quantity of experience** of applicants for professional registration has been noted by the Alberta Association, although no attempt was made to explain this trend.

A subcommittee of members of the B.C. Association has presented **recommendations regarding the administration of Civil works inspections** in the province. Considerable diversity in the approach of various levels of government to the requirements for inspections was found by the committee.

Two of the revised requirements the Saskatchewan Association has just approved for

Life Member Status are that the member is over 60 years old and no longer seeking any form of alternate employment.

The P.E.I. Association has just sent a pamphlet to all members on the **requirement for engineering to be performed by registered engineers**. The pamphlet will also be sent to all employers of engineers, both public and private.

The Ontario Association unveiled "Have Heroes Will Travel", a portable display which develops the theme of the **engineer as a universal hero**. The purpose of the display is two-fold: first to remind Association members of their proud traditions and noble calling, and second, to encourage the public to take a closer look at the profession and its practitioners. □

Council Reports

JULY 14, 1986

By P.R. Gordon, P. Eng.

At which Council starts to consider the problems of "whistle blowing".

The July 14, 1986 meeting of the A.P.E.M. Council was called to order at 3:36 p.m. by President E.W.J. Clarke with Councillors O. Hawaleshka, L.A. Bateman, W.R. Newton, G.E. Laliberte, E.A. Speers, K.A. Buhr, R.A. Kane and General Manager and Registrar W.B. Mackenzie in attendance. The agenda and the minutes of the previous council meeting of June 9 were quickly reviewed and approved.

Financial Statements

The financial statements for the ten months ending May 10, 1986 were reviewed and accepted. The Association appears to be in a healthy financial position with a net income for the period of \$143,175.66. This is a positive difference of over \$122,000 from the budget, with approximately \$80,000 due to higher than expected income and \$40,000 for expenses under budget. Costs for this publication appeared to have been overspent but this was explained as an error in accounting allocation.

Licenses, Engineering Graduates, Transfers and Registrations

The Council spent considerable time reviewing the 12 licence applications (for out-of-province engineers). There was discussion regarding whether a project on which the engineer is to work should be specified. It was determined that this is not mandatory as the licence is granted for a specific period i.e. one year, and not on a project basis. Two of the applications mentioned "certification," which prompted a discussion on this topic. A licence for "certification of drawings and specifications" was granted as it appeared the engineer would be directly responsible for the engineering. However, a license "to certify... pre-engineered buildings" was withheld pending

receipt of information clarifying the certification procedure and engineering work to be performed.

Three applications for enrollment as Engineering Graduates and six transfers from other provinces were quickly approved.

There were 23 applications for registration considered at this meeting. There were questions regarding the allowance as experience for a Masters Degree and one application was excluded and referred to the Admissions Review Board to ensure that requirements for experience were satisfied.

Executive Committee Meeting of June 19, 1986

There were two items from the Executive Committee meeting of June 19, 1986 requiring action by the Council. The Council approved an Executive Committee recommendation that the Association not provide direct financial support to the Manitoba Building Envelope Council. A request for comments from C.C.P.E. on the Dupuis and Taylor reports regarding educational and admission standards for the Profession was referred to the Board of Examiners to prepare comments and recommendations for consideration by Council on September 8, 1986.

Safety in Engineering Practice Committee

The Council reviewed and approved a draft letter submitted by the Safety in Engineering Practice Committee to be sent to various government departments and associations recommending that glue laminated wood structures be inspected on a regular basis by qualified professional engineers to prevent the type of failures which have occurred in recent years.

An unplanned but interesting and worthwhile discussion was held on the problems of "whistle blowing" in the situation where employee engineer reports unsafe engineering practice to non-engineering management who do not act on the matter. The Space Shuttle disaster and the subject of a film produced by APEO were cited as examples. It was decided that the Council should deal with the issue. The problem was referred to the Safety in Engineering

U of M Innovative Vehicle Receives Award at Expo '86

By D.N. Spangelo, P. Eng.

A group of University of Manitoba Engineering students were involved in developing and building a prototype vehicle, nicknamed "Red Lion", for an International Innovative Vehicle Design Competition on July 11-29th, held in conjunction with Expo '86 in Vancouver, B.C.

The vehicle is the latest of many designed and built by University of Manitoba students. Vehicles from here have competed in the Shell Fuel-a-Thon, at the G.M. Proving Grounds, and other international competitions.

Innovative aspects of "The Red Lion" included the substitution of ammonia for gasoline to eliminate carbon monoxide emissions. The aluminum chassis was designed using computer aided analysis, and the



"The Red Lion" being tested in Vancouver.

body is a composite Kevlar material with air operated sliding doors for aspects of safety as well as ease of access.

Although it won the safety award, it did not win any of the major prizes which offered university scholarships ranging from \$25,000 to \$100,000.

First prize went to the University of British Columbia's three-wheeled vehicle which operated via a computerized touch-button dashboard display. □

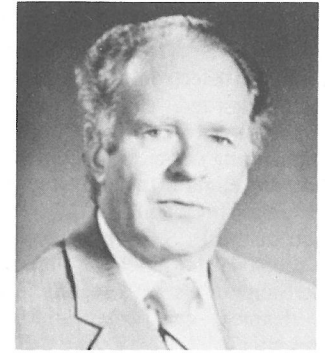
Past President Receives Award

By L. Ganetsky, P. Eng.

Ted Glass, a past-president of our Association and a senior manager with Westinghouse Canada, Ltd. here in Winnipeg, has been honoured by the Institute of Electrical and Electronics Engineers. The I.E.E.E.'s Regional Activities Board chose Ted as the recipient of the R.A.B. Innovation Award.

This award is a world-wide competition and is given for the most innovative and effective accomplishment in fulfilling one of the stated goals and objectives of the Regional Activities Committee.

Ted has earned this award through his persevering efforts to launch the McNaughton Learning Resource Centre Program in our universities and colleges. These centres are set up across Canada on university campuses for the student branches of the I.E.E.E. □



The receipt of this award has given Ted international recognition, and deservedly so. His citation reads: "Presented to Edward F. Glass for his foresight and initiative in establishing the McNaughton Learning Resource Centre Program at Canadian universities and colleges. This innovative and practical application of an I.E.E.E. presence on campus has revitalized the student branches and given an added purpose for being." □

Practice Committee with a request that they make recommendations as to the procedures to be followed or directives to be issued.

Awards

The Council reviewed and approved the recommendations of the Awards Committee for an Outstanding Service Award, two Merit Awards and an Honorary Life Membership.

Old Pinawa Dam Heritage Park

The opportunity for the Association to participate with other organizations in recognizing the Old Pinawa Dam site as a historical engineering site was discussed. A committee of Mr. Bill McKay and Mr. L.A. Bateman plus two others was established to liaise with other organizations and determine what action might be taken.

As there was no further business the meeting adjourned at 7:04 p.m. □

AUGUST 11, 1986

By Don Spangelo, P. Eng.

Where Council adopts a new direction for The Association Salary Schedule and approves the 1987 budget.

With E.W.J. Clarke presiding and W.D. Christie, W.R. Newton, G.E. Laliberte, L.A. Bateman, E.A. Speers, G.W. Saunders, K.A. Buhr, A. Schwartz, R.A. Kane, O. Hawaleshka present, the meeting quickly attained an intense level of discussion after the agenda and minutes were approved.

Salary Schedule Committee Recommendations

Mr. Symonds, Committee Chairman, introduced the proposed Salary Schedule curve. He outlined the committee's objectives in developing a 1987 curve.

Since there was some concern from the committee as to what the curve should show, Council was asked to confirm the committee's direction. Council discussed whether the salary curve should show actual salaries or show what the Association feels salaries should be.

After a great deal of debate, Council agreed to have the committee re-draw the curve to reflect actual salaries. The curve would

therefore reflect the previous year's salaries plus inflation only.

Council then moved through the financial statements, Applications for Licence, Engineering Graduate membership and Registration. These were approved with a few exclusions.

Council Approves 1987 Budget

The 1987 budget was approved, based on a net income of \$396,920 and net expenditures of \$359,791, with \$37,129 left for reserves. Since reserves have accumulated in the last few years, Council briefly discussed a policy of reserves funds leaving additional discussion to a later date. The new budget was based on a smaller increase in membership than last year. Annual dues will not be increased and will now be segregated from the registration fees. The budget includes a provision for an additional full-time staff member to act as an act enforcement officer.

Old Pinawa Project

Council appointed Mr. W. Newton and Mr. Hallson to the committee investigating the Pinawa site as a historical engineering site.

C.C.P.E. Reports on Entry to the Profession

Council discussed the recommendations from the Board of Examiners response to the three C.C.P.E. committee reports; the so-called Taylor, Evans and Dupuis reports. All three related to entry to the profession and address the question of mobility of engineers between provinces. For a background on these reports, see Page 2 of the August issue of the *Manitoba Professional Engineer*. Most of the discussion centered on a recommendation that eventually a basic requirement for registration would be a Bachelor's Degree in Engineering. The Board pointed out that this recommendation, if implemented, would prevent certain well-qualified people from entering the profession. As well, Council discussed the other concerns of the Board and approved their recommendations. These A.P.E.M. recommendations will be passed on to C.C.P.E. for their consideration. Council expressed its sincere thanks to the Board of Examiners for its diligence and hard work in connection with this matter.

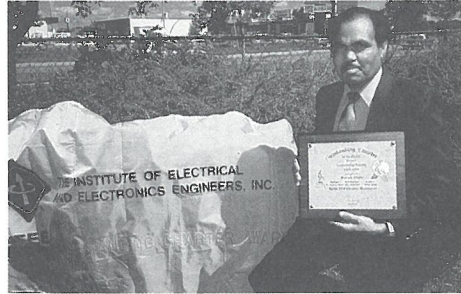
C.C.P.E. Director Appointed

As per tradition, Mr. Clarke was appointed A.P.E.M. Director to C.C.P.E. for the 1986-87 period. □

Winnipeg Power Engineering Chapter Wins World-Wide Award!

The Winnipeg Chapter of the Power Engineering Society (PES) of the Institute of Electrical and Electronics Engineers (IEEE) has been awarded the 1985-86 Outstanding Chapter Award. There are 131 Power Engineering Society Chapters world-wide that are eligible to compete for the award. Dr. Jagdish Chand, P. Eng., 1985-86 Chairman of the PES Chapter received the award at the Awards Luncheon on July 22, 1986 at the Summer Power Meeting in Mexico City. A framed certificate and banner were presented.

This is the 13th year the award has been made. The Winnipeg Chapter has been a runner-up for the previous three years. The evaluation for the award is based on nine criteria including technical program, educational program, public affairs, student ac-



tivities, and membership promotion and advancement. After receiving the award, Dr. Chand stated "I believe the main reason for our success in winning the Most Outstanding Chapter Award is our bi-weekly lunch meetings which don't take too much time out of people's busy schedules, but allow participants to learn about many topics, about

the many things going on directly from people involved."

Held from September to May, speakers representing NASA, General Electric, Atomic Energy, other utilities from the US and Canada, industries, manufacturers, consulting companies, research establishments, universities, and governments, keep us informed about what's going on in many interesting areas of engineering and technology".

There are four local chapters of IEEE Technical Societies as part of the Winnipeg Section: Power Engineering, Computer, Communications, and Engineering in Medicine and Biology. For more information on the IEEE please call Mr. Lester Glantz, P. Eng. 1986-87 Chairman of the Winnipeg Section of the IEEE at 889-2071. □

Peer Review Program Indicated by American Engineers

A Peer Review Program initiated by American Consulting Engineers has been well received and has produced tangible results, says Lester Poggemeyer, President of American Consulting Engineers Council. A presentation to the Association of Consulting Engineers of Canada 1986 General Meeting given by Mr. Poggemeyer elicited enthusiasm on the part of many of those present, for the establishment of a similar program in Canada.

But that was just the delegates to the An-

nual Meeting. The question remains whether the concept would be acceptable to the majority of the ACEC Member Firms.

In a nutshell, the program works as follows: under conditions of strictest confidentiality, a consulting engineering firm allows trained reviewers to assess its operations. The reviewers may be consulting engineers but from a non-competing field of practice and who reside in a different part of the country. They will evaluate the firm in terms of general management, project execu-

tion, personnel policies, business development, office management systems and contracting practices. At the end of the two-day process, a verbal report is submitted to the principals of the firm outlining strengths and deficiencies and suggesting areas which should be considered for improvement.

Costs to the consulting engineering practice are minimal, involving only the travel and living expenses of the reviewers together with a fee to cover central administrative costs and reviewers' per diems. Of course, those who have been reviewed will be encouraged to become reviewers themselves.

The U.S. experience is that the program is very well received. The benefits are certainly tangible and firms come out much stronger for the experience. Still in the works is the possibility that insurers may rebate a portion of liability insurance premiums to program participants.

But from the Canadian point of view numerous questions exist. The ACEC has distributed a questionnaire in an attempt to answer these questions and determine if establishment of a Peer Review Program is feasible. □

Professional Development Breakfast Meeting: Does Society Need Professionals?

By W.B. Mackenzie, P. Eng.

...and, in particular, does society need professionals who are not just well trained in technical matters but, rather, who are conscious of and prepared to address the impact of their work on human beings and on mankind in general? This interesting question as it applies to the profession of engineering, was the theme of a talk by George Sinclair, P. Eng. at the August 15th breakfast meeting arranged by the Professional Development Committee.

Who in our society, Dr. Sinclair asks, should look for solutions and implement action regarding such serious societal problems as pollution, unemployment, inflation, pending energy crises, lack of economic growth, etc.?

We are all aware of these problems which Mr. Sinclair calls "second order" problems, ie. problems which cannot be solved by referring to technical books and tables (which Dr. Sinclair calls "first order" problems — those which can be solved by reference to books, tables, etc.). He feels that only those that tackle these second order problems, problems with a heavy human component, can be considered to be professionals. □

Professional engineers have a better chance than those in other professions in finding solutions or partial solutions. And yet, as Dr. Sinclair points out, engineering programs in Canada and the United States barely touch on the human equation in their programs of studies. More and more, he stated, these programs are becoming technically and scientifically oriented and less and less oriented to the professional aspects of engineering which are so essential in solving mankind's serious and fundamental problems.

Dr. Sinclair delved rather deeply into some of the philosophical aspects of professionalism. He outlined his deep concern regarding engineering programs which ignore the relationship of engineering disciplines to the lives of people in society and the question of why society needs professionals.

Those who missed Dr. Sinclair's address missed a singularly thought-provoking talk — one which provided an expanded view of the role of professional engineers in society. The Professional Development Committee is to be congratulated for arranging the meeting. □

Licences Issued at the August and September 1986 Council Meetings

M.T. Braae, P. Eng. (Ont.)
G. Lantos, P. Eng. (Ont.)
John Dawson-Edwards, P. Eng. (Alta.)
W.N. Hasegawa, P. Eng. (Alta.)
L.J. Knutson, P. Eng. (Alta.)
N.W. Kopp, P. Eng. (Alta.)
R.E. Morin, P. Eng. (Ont.)
A.M. Robertson, P. Eng. (B.C.)
Stjepan Skaberna, P. Eng. (Que.)
D.J. Aitken, P. Eng. (Alta.)
R.G. Cawker, P. Eng. (B.C.)
V.S. Platek, P. Eng. (Que.)