

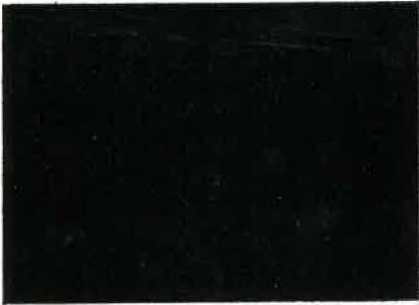


**THE
MANITOBA**

**P
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**PROFESSIONAL
ENGINEER**



**bulletin of the
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of the
province of manitoba**

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

WINNIPEG, MANITOBA, APRIL, 1973

SOME COMMENTS ON THE CHURCHILL RIVER DIVERSION CONTROVERSY

By A. M. LANSDOWN, P. Eng.

At the March meeting of Council, I made a presentation on my position concerning the controversy over the Churchill River diversion. Because the issue involves a number of members of our profession, and I believe involves issues of major importance to the profession and its role in society, I offered to prepare a statement for the Bulletin, outlining my point of view, and summarizing my discussion in Council.

I believe a number of members of the A.P.E.M. and some members of the general public have looked upon the issue as one group of individuals (primarily University professors and predominantly civil engineers) picking away at the methodology and expertise of another group (primarily employees of Manitoba Hydro, and to a lesser extent, members of the Water Control Directorate).

This is not the case, nor is it the intent of the criticism. My criticism, since December 1968, has been directed at the makers of policy — the government, and not at civil servants or members of a Crown corporation. Unfortunately, however, in a political issue such as the diversion, which is so involved with technology, inevitably small "p" politics and technology become closely intermingled, and sometimes almost

indistinguishable to the untrained or un-discerning eye. In such circumstances utterances on matters of policy can appear to be personal attacks, and embarrassments created. If such embarrassments have been provoked, I can only offer my apology that circumstances have forced them to arise.

The struggle over the Churchill diversion has raised, or rather exposed, two basic issues, I believe. These are

(1) Serious weaknesses in the Province's water and resource policies, and the manner in which she is organized to deal with them, and

(2) Serious shortcomings in the interpretation of the professional's role in modern society.

In the policy field, it is important to note that Manitoba Hydro, just like any other corporation or individual, is a party-at-interest when it comes to manipulating Manitoba's waterways. Hydro, like any of us, must seek approval before proceeding on its vested-interest activities — this is what licensing is all about. Its vested-interest activity is to produce electric power as cheaply as it can, **within the restraints set upon it by society**. It is the Legislature's function, or in our case that of the Minister of Mines and Natural Resources, to weigh the impact of water power proposals, in economic, social and human context, and impose the restraints.

In turn, the Legislature or the Minister must weigh technical proposals made, as

they come in. This can be done through the maintenance of a "Department of Hydro Resources", of expertise approximately equivalent to that of Hydro, or through the use of consultants or commissioners who have not been involved with the proposal itself. In addition, because **public policy** is being handled — a field in which all citizens are equally expert technically — the weighing of major projects must be done openly. The medium of full public hearings, with cross-examination, provides the means of publicly exercising public policy. Clearly, no counterbalance to Manitoba Hydro has been provided in Manitoba by the structure of the Civil Service, or by the behaviour of two consecutive governments.

A second problem in public policy is the lack of a Minister of the Environment in Manitoba. It is true that we have a portfolio labelled "Mines, Resources and Environmental Management", but this is no substitute for a portfolio, "Environment". The difficulty is compounded by the fact that we have, by his own admission, a "development man" (Mr. Green) in the Mines portfolio. As a result, major questions of environment are settled in the mind of a development-oriented minister, **before** any discussion takes place in cabinet. The environment has been silenced at the ultimate policy level in the Province.

An additional difficulty stems from the fact that we are a very materialistically-oriented society — perhaps more so than any other civilization in history. We seem to have been condemned to know the price of everything but the value of nothing. This curse leads us to value things here and now much more than anything in the future. The fact that an item is devalued to 2.132% of its value in 50 years (less than 2 generations) at 8% is a sobering thought, particularly when we apply it to people and their comfort and happiness. This devaluation philosophy means, in turn, that any protection or conservation of future possibilities (resources, options, etc.) must begin by fighting an uphill battle. Coupled with our "rigged" silence on environment matters at the cabinet level, conservation or environmental protection **that does not gain us a financial return** in the current fiscal year, or in the near future, is almost doomed.

At this point we must recognize that it is the responsibility of a University to educate those people in society who will

take on their major duties 20 years or so from now. This is especially so in a Faculty like that of Engineering, and doubly important in that field which, of necessity, bumps up against society in its daily work (Civil Engineering). For example, it is my duty to look toward possible futures at the turn of the century and beyond, apply my particular expertise of a professor of civil engineering, and establish what must be taught now for those future challenges.

Unfortunately, in my view, the medium term future is not too bright, because it will only take two or three Parliaments or Legislatures — 8 to 12 more years — before we have committed almost all of Canada's natural resources — renewable and non-renewable — not to the management of future Canadians, but to the highest bidder in Japan, Germany or the United States. As the Honourable The Minister of Tourism and Recreation, Mr. Desjardins asked in April, 1969, "Will future Manitobans praise us or curse us for this Act?" I believe that our children, 30 years hence, will look upon us almost as criminals if we, as informed members of society, flog all of their resource options today for some quick cash. In this respect, engineers are particularly involved, because we have the expertise to see the consequences of our actions, as experienced planners, but also the means of fast execution, as zealous developers. I believe it is my responsibility, both as an academic, and as a professional with future oriented expertise, to try to change this unhappy drift of events.

This brings me to the second point — the role of the professional in modern society. I believe a number of members of Canadian professions (a depressingly large number) have traditionally interpreted "professionalism", and its entourage of "professional ethics", in the very narrow and restricting sense of professional-client relationship, and have ignored or at least minimized the broader responsibility of the profession to society at large. A glance at our code of ethics and the number of clauses devoted to each of these two points of view serves to illustrate where the Profession's emphasis has been even in the most recent past.

However I believe the time has come, perhaps is somewhat overdue, for a very serious re-evaluation of this position. Is it "professional" for an employee engineer to know of social harm to come from work he has been assigned, but to keep quiet,

because his client (employer) might be upset if he refused to undertake it? If the answer is "yes", then I believe the "Professions" vanish as a special category in Canadian society, and the sooner we stop the misleading charade of "special status", the better. On the other hand, we could opt for the respect and protection of strong personal conviction, based on reasoned, critical and disciplined thought. If such a course were adopted, then I believe that the survival of "Professionalism" becomes of paramount importance to Canadian society.

I have clearly opted for the latter. I believe the situation concerning our resources in Canada is near critical, with little time left to be wasted hoping that somehow, the slow pace of evolution will solve our ills. I believe that some members of society with the technical expertise necessary to see what is happening, must try to stop the general apathetic drift of events. We must not allow the destiny of this nation and her resources to be guided only by her past or by men of straw.

It is for these reasons that I am compelled to break silence in matters dealing with the development of Northern Manitoba's water resources — a matter of major public policy.

* * *

LOMBARD LINES

By L. J. WHITNEY, P. Eng.

February 6

Council today unanimously agreed to accept an invitation from the Law Reform Commission to submit a brief in regard to the Mechanics' Lien Act and the Builders' and Workmen's Act. Council was of the opinion that since many professional engineers were responsible for the administration of a large number of contracts between owners and contractors and since many were also employed by contractors and sub-contractors, the Association has a responsibility to make such contributions as it can to legislation in these areas.

The brief, prepared by the Legislation Committee and reviewed by Council, states that the Mechanics' Lien Act should be retained in that it provides a method of satisfying justified claims by workmen and others in such a manner that hardship to the owner is avoided. In addition, the holdback provided for in the Act serves

to enforce the performance of a contract in regard to deficiencies and extended completion periods. Should the Mechanics' Lien Act cease to exist, it would be necessary to insert some other holdback clause in construction contracts. Such a clause might vary from contract to contract and there would be a risk of inadequate or unnecessarily harsh situations. The brief also suggests that it would be desirable to extend the holdback period from thirty to sixty-five days and that any agreement to waive lien rights prior to performance of the work by any party be null and void.

Council then considered a letter from the Annual Meeting Committee regarding the format of the last two annual meetings. The Committee suggested that the length of the meeting should be reduced to one-half day with the business session beginning in the mid-afternoon followed by a buffet supper and bar. The Committee also suggested that a number of satirical skits could be presented by various committees of the Association following the supper.

The majority of Council objected to both a reduction in the length of the meeting and the presentation of skits. President McBain suggested that the Annual Meeting should be the focal point of the Association's year. He did not feel that the changes suggested by the Committee would help accomplish this. Councillor Feschuk expressed concern that at the present time it was difficult for the general membership to make any significant input into the Annual Meeting since it was necessary to give notice of resolution one month prior to the meeting. He suggested that an "open-period" should be initiated where resolutions from the floor could be presented. Councillors DePauw and Scouten agreed that such a resolutions period should be considered. Discussion of this item concluded with the appointment of Councillors Feschuk and Scouten as an ad hoc Committee of Council to meet with the Annual Meeting Committee to consider future meeting arrangements.

Councillor Grimes reported that D. B. Sigurdson, P. Eng., and R. J. Karras, P. Eng., had agreed to serve on the University Liaison Committee and also to represent the Association on the University of Manitoba Mechanical Engineering Department Curriculum Committee.

To conclude the meeting, Council authorized the expenditure of approximately \$650.00 for the purchase of a Tape Recorder — Transcriber for the recording

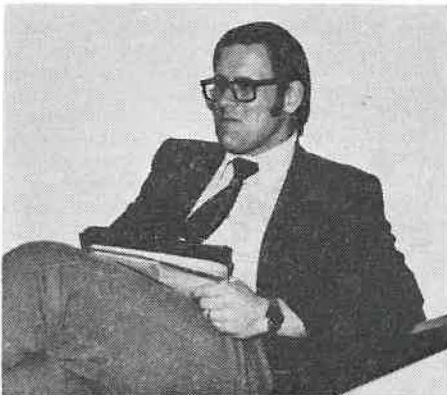
and transcribing of the proceedings of disciplinary hearings. Council agreed that the purchase of this equipment had become necessary because of the increased activity in this area.

March 6

Council today regretfully accepted the resignation of Councillor A. M. Lansdown from the Executive/Finance Committee and from the Admissions Review Board. Councillor Lansdown, one of the more senior members of Council, was forced to make his decision because of the pressure of other activities. He will, however, retain his seat on Council. Councillor Grimes was appointed to fill the vacancy on the Executive/Finance Committee while Councillor Scouten will replace Councillor Lansdown on the Admissions Review Board.

Mr. J. Stefanson, Chairman of the Employee Engineers Committee, appeared before Council to speak on collective bargaining at it applies to employee engineers. Mr. Stefanson asked, on behalf of the Employee Engineers Committee, that Council redefine its position regarding voluntary groups versus legally certified groups since it was becoming evident that so-called voluntary groups may not prove to be practical.

After considerable debate, Council unanimously agreed that assistance would be extended to engineers in a group even if the group is obliged to, or wishes to include other professionals. It was further agreed that as a general rule, Council would not set aside funds to pay for the negotiating phase of a collective bargaining agreement or for the services of a solicitor for a group, preferring to consider any such request on its own merit.



Reporter Whitney prior to banishment.

Your reporter was asked to leave the Council Chamber before consideration of the remaining agenda items. In spite of several protestations of freedom of the press and the membership's right to know, the door closed firmly behind me.

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LETTERS

Opinions expressed in Letters to the Editor are not necessarily those held by the Bulletin Committee, the A.P.E.M. or the Council of the A.P.E.M.

The Editor.

Dear Sir:

Has the A.P.E.M. not a responsibility to guide the university in a selection of courses that will educate engineers to be useful to themselves and the public? The University of Manitoba prints a six page introductory brochure to students interested in engineering. The following is an excerpt of the brochure.

"In the past, the education of engineers did not encourage them to live up to the definition just given. For, until recently, some people subscribed to the view that the natural resources available to serve mankind were unlimited, and that the engineer was a servant of society, trained only in the exploitation of these resources. But, a good engineer is very conscious of the place of his profession in the social and historic structure. He uses his engineering in the re-shaping of man's environment and resources to his needs, a remarkably varied, fulfilling, and challenging activity. Through its ability to create wealth and alter the nature of society by innovation, engineering is the most patent influence on history.

Today, in a world of rapid population increase and the problems of feeding the multitudes, of sophisticated technology and continuing industrial growth, the engineer is being interlaced into the complex problems of environmental quality versus society's rapid expansion. The engineer, having provided us with the car, the aircraft, television, computer, and spacecraft, must now also provide us with the tools to overcome the environmental problems associated with these things. Consequently, the easy labelling of people as civil engineers, mechanical engineers, electrical engineers, etc., is becoming increasingly less relevant as engineers attempt to re-

concile technological progress with environmental quality.

The employment prospects for people with an engineering education are changing. There are opportunities for people educated in the traditional sense. But an engineering education also provides a splendid background for liberal education since an understanding of technology is an understanding of one of the most important social forces of this generation. Thus some students who do not intend to practise as engineers, elect engineering as a fundamental education for careers in teaching, medicine, law, business, economics, and computer science."

Now look at the calendar for the year 1971-72. For Mechanical Engineering the approximate total time for all technical courses is 2300 hours and the total time, for non-technical electives, 145 hours. The time spent on technical courses is 16 times greater than the time spent on non-technical courses. Furthermore, the recommended non-technical elective, for those students who cannot decide, is economics.

Consider the courses offered by the Evening Institute for 1973 which include: The Development and Use of Ecological Impact Theory; Man as a Problem to Himself; Personal Influence; The Holocaust: A Study in Human Nature; and for Hydro and government employees, Sociology of Northern Manitoba.

Pick up a newspaper and ask yourself where does engineering incompetence lie. Is it not time for a greater emphasis in engineering education on the effects of what engineering decisions have on our society? Is it up to engineers who are supposedly educated to follow the wishes of the public, or should we use our knowledge and ability to think analytically to show the public that we are leaders of our society, not followers.

Yours truly,

PETE DE GRAAF, P. Eng.

The Editor.

Dear Sir:

Much has been said in recent times about the lack of recognition encountered by professional engineers. Several actions have been recommended as partial solutions to the problem, including public relations campaigns, demands for significant

salary increases, and the greater use of technicians and technologists for the purpose of "freeing" engineers to do "creative" work. Whereas these suggestions may have some merit, I believe they only constitute a surface treatment, and the paint may soon wear off, if it adheres at all.

In my opinion, the basic problem lies within the engineering group itself, and it is not the lack of understanding and appreciation by others. This lack is obviously present, but if it is merely a reflection to be different and reap the rewards we desire, then we must first change ourselves.

It was encouraging to read Mr. G. A. DePauw's "Humorous Self-Analysis" which you printed in the February issue of the Bulletin. As far as I am aware, this is the first time that the concepts of competence and incompetence have been raised on such a broad level. Although some of us may disagree with several of the words and expressions which Mr. DePauw has chosen to use to illustrate his point, there is a great deal of validity to his message, and it should be taken seriously, if we are serious about improving our public image and our professional status.

The young engineer is usually enthusiastic and eager to learn and his job usually provides a challenge to learn and to keep up to date. It is unfortunate that this challenge is so often lost prematurely. Although the loss may sometimes be due to a particular organizational maze, the more common reason is probably the attitude, behaviour and personal ambitions of the senior staff or officers, many of whom are also professional engineers.

At the level of chief engineers, managing directors, administrators or other positions which involve guidance and motivation of groups of engineers and others, the challenges and the personal qualifications required are different than they are at the "design" level. These new qualifications, however, are not gained automatically through the struggle up the organizational ladder, but require a considerable and continuous inner effort directed at improvement of oneself as a person. Since it is considerably easier to learn the organizational "tricks of the trade" and to act only according to what we believe necessary for our own immediate benefit, we often do an inadequate job of the total up-grading of ourselves and consequently wind up as incompetent leaders. There are, of course, exceptions to such a generalization, but, when one looks beyond the multitude of

excuses and rationalizations, the exceptions appear too few for a professional group the size of ours.

When the national and provincial leadership of our social community becomes complacent and incompetent we try to remedy the situation by turning them out of office. Such an option does not exist in the engineering community. We may make the Association the scapegoat, continue to show up at association meetings and expound on professional ethics, or launch a clever public relations program, but the benefits will be negligible as long as we maintain our level of incompetency, as Mr. DePauw puts it, in our every day work. The professional potential of many engineers will continue to be snuffed out and no doubt efforts at unionization will increase. It is not those groups who are to blame. Public recognition and understanding will not improve — for who amongst us provide the principal contacts with the public?

Mr. DePauw, a well known chief bridge engineer, has shown a great deal of courage in putting his "self-analysis" in print. How many others, especially in the senior categories, have the courage to honestly evaluate themselves **and then do something about it?** —I. REINART, P. Eng.

The Editor.

Dear Sir:

While you are, obviously not responsible for the truthfulness or relevance of statements expressed in "letters to the Editor" you are responsible for publishing them. By accepting W. M. Veldman's letter in the February issue you have rendered him and the profession a grave disservice.

If a member wishes to accuse a fellow engineer of unethical conduct then there are proper ways of doing so, ways that pinpoint the blame, specify the charges, allow the accused the opportunity to defend himself and that settles the issue: the charge is either substantiated or dropped. Attacking a whole category of fellow engineers — all engineers at the university who have participated in the public discussion of the Churchill River Diversion — and doing this by quoting out of context and in Veldman's own words what some of us may have said, is definitely not the proper way.

It is well known among the engineering profession that I have participated in the public discussion of the project. By implication I stand accused of making misleading, irresponsible and perhaps false statements, of one-sided indoctrination of my students and of several other grave offences against professional ethics. And the association is publicly called upon by Veldman to consider disciplinary action against me if I persist. But Veldman does not mention my name explicitly, nor any other name which would allow us at least to defend our reputation. By publishing Veldman's letter you, Mr. Editor have also become guilty of defamation of character.

The charges Veldman levels against the engineering professors at the University of Manitoba are simply ridiculous. It is true that the students invited a speaker from Manitoba Hydro. But there was full agreement between Professor Kuiper and the students that he be invited, a regular lecture period was set aside for it and the invitation came from the students rather than from the faculty only because this was considered by all to be more appropriate and a greater incentive for Manitoba Hydro to comply.

I do not have the desire, Mr. Editor, to analyse and attempt to refute more in Veldman's letter. I do wish to say something about the root of the problem as I see it.

Veldman is totally wrong in his characterization of the Churchill River Diversion as an "engineering subject" in the sense the Code of Ethics uses the term. The criticism of the diversion or of the proposed method of diversion is directed primarily against the social and environmental aspects of the problem. I am certain that all the critics would gladly leave all the technical questions and all the questions of power economics to Manitoba Hydro. However, Manitoba Hydro has publicly taken the position that their proposal is the right and only feasible course of action. And that view determines the information it releases, which is limited and selective. Thus, when critics go out on a limb and make their own technical assessment of the project then the more pertinent question is: Why did they have to do this in the first place?

Let me substantiate what I am saying with two examples from my own experience. While I was in the Manitoba Water Commission and charged with the responsibility of advising the minister on the best

use of Lake Winnipeg, I asked Manitoba Hydro for specific information on the value of storage for hydro electric purposes, results of computer runs actually made. Mr. Cass-Beggs wrote me on September 21, 1971, in reply that it would not be in the public interest to make this information available to me. Since the government upheld this decision it was no longer possible for me to support Lake Winnipeg Regulation as a power project. From that time on I have carefully refrained from expressing any opinion on that aspect of the project. Now Mr. Green is critical of Dr. Newbury and myself for not standing behind the project when it was severely criticized precisely from the viewpoint of hydro-economics and for thus lending support to the critics of the government and Manitoba Hydro. But the problem was not that Mr. Campbell was making his own engineering calculations. The problem was that he had to. The problem was that even at the public meetings held on the project Mr. Cass-Beggs could not quantify the power benefits associated with various levels of regulation.

Secondly, I have on several occasions urged Manitoba Hydro to prepare workable alternatives for public consideration. I have asked, for example, what the Utility would do if it had to leave Southern Indian Lake within its present range of fluctuation as is required for Lake Winnipeg. I have asked them to quantify the effect of say, an upper level restraint of 714 on Lake Winnipeg Regulation. Mr. Cass-Beggs said that he was totally opposed to publishing this kind of information. At a meeting he told me: "You want me to prepare not only our own case but also the case against Manitoba Hydro." In other words, Manitoba Hydro is a party at interest. The information it presents on its proposals and on the alternatives is aimed at defending Manitoba Hydro's case.

I do not want to be misunderstood. I do not say that therefore the information published by Manitoba Hydro is false or unreliable. I am saying that Manitoba Hydro's engineering calculations and designs are used to support the Utility's stand in an issue that goes far beyond the engineering problem of providing Manitoba with an economical and dependable source of electric power. Therefore, Manitoba Hydro should not be surprised if attempts are made to shake the technical evidence adduced to support the contention that there is no reasonable alternative to Manitoba Hydro's proposal. It is to be expected

that such efforts will on occasion lead to erroneous conclusions. That is really beside the point. The point is that the effort made is a legitimate effort. It is made legitimate because of Manitoba Hydro's policy of taking a stand in an issue which involves aspects in which the organization has no professional expertise and which requires value judgments which any citizen is entitled to reach independent of expert opinion.

I understand Veldman's frustrations which are shared by many of his colleagues in Manitoba Hydro. I suggest that he is barking up the wrong tree.

Sincerely,

C. BOOY, P. Eng.

The Editor.

Dear Sir:

When Mr. Veldman writes in his letter in the February issue: "Is it professional conduct to indoctrinate students with only one viewpoint of such a complex problem? Why did the students themselves have to request a speaker from Manitoba Hydro to present the other side of the story?", then Mr. Veldman commits the very sin of which he accuses his colleagues, namely the fabrication of "half-truths and misleading, irresponsible and perhaps false statements".

I am shocked that a member of our A.P.E.M. lowers himself to the point of making such slanderous insinuations and that our editor has seen fit to print such a letter. May I suggest that Mr. Veldman either proves his accusation beyond doubt, or else apologizes to the profession in general, and to the academic community in particular.

—E. KUIPER, P. Eng.

The Editor.

Dear Sir:

My comments on Prof. Booy's and Prof. Kuipers statements are as follows:

1. Prof. Kuiper says that my comment on the indoctrination of students is slanderous. The vast majority of fourth year civil students whom I interviewed for employment expressed the belief that they could not judge the validity of the Churchill River Diversion because they had heard only one viewpoint.

Two of these students further indicated that they specifically had to request a Hydro spokesman.

2. Prof. Booy states that there are proper ways of accusing a fellow engineer. My only other alternatives were directly to the A.P.E.M. Council or to the public press. Because this issue affects all engineers it should be aired to everyone thus affected. Although I have been urged by people to do so, I have refrained from making statements to the press, as some of the professors have done.
3. Let me reiterate the main thesis in my article; that the statements issued by some of the professors are misleading. A specific example of this was Prof. Kuiper's statements to a public meeting on March 18th that Saskatchewan could conceivably divert half the Churchill River flows. Although this is true, it cannot become critical to the diversion scheme because based on the average daily consumption in Winnipeg, the population of Saskatchewan would have to increase to 100 million to utilize half the Churchill flows. The total irrigable area in the South Saskatchewan Dam area (approx. 500,000 acres) would use an average annual requirement of only 1,400 cfs. (as compared to an average flow on the Churchill of 30,000 cfs.). At the present only 10% of the irrigable area has been developed and further work has stopped because of the reluctance of the farmers to adopt this method of farming.
4. Prof. Booy says he can understand that I and the majority of my colleagues at Hydro are frustrated. Let me suggest that this is infinitely more so because of the behaviour of some of the academic community rather than any disagreement we may have with government policy on hydro developments.

Sincerely,

—W. M. VELDMAN, P. Eng.

Mr. Ed.

Our social studies teacher is making us write a project on Unemployment. Because my daddy is a engineer I gotta write a piece on unemployed professionals mainly because engineers are professional (my daddy says).

I already rote to Inflation Canada

who said to right to Spastistics Canada who collect datas, (whatever that is).

Spastistics Canada gave me the latest figures which says that in 1961 there was 14 engineers unemployed. Can you please tell me are they on unemployment insurance, do they wanna work, would they work in the far north like Winnipeg Beach, have they a LIP grant. — DEBBIE, Age 8

March 20, 1973

Dear Debbie:

First of all your statistics are out of date. Those people who were unemployed in 1961 did not have the advantages of a nouveau riche socially conscious society. In those unenlightened days they had no alternative — they went back to work. One of them even accepted a job in Thompson. None were on unemployment insurance, they all wanted to work, and grants in those days were used for academic research.

Perhaps you should endeavour to differentiate between Unemployed Professionals and the Professional Unemployed.

A professional considers that his first duty is to society. As such he must work and contribute and pay his taxes and see that designs are adequate, economic and good for society. Thus an unemployed Professional will worry a lot (to say nothing of his wife). A Professional Unemployed is one who doesn't worry because he contributes by keeping Statistics Canada, Manpower, the Unemployment Insurance Commission, and other government organizations going. He is fondly referred to as a client by Do Gooders everywhere and many University of Toronto commentators are given employment with the C. B. C. to expound their simplistic answers to complex problems as a result of him. Because he is unemployed several jobs are provided to others.

We will leave it to you and your social studies class to decide which of the two are doing the best for society as true professionals should.

Yours truly,

—THE EDITOR

P.S. Regarding LIP grants, I can assure you that Mr. S. J. Armstrong, our volunteer employment manager and typical reactionary, will dish out some LIP if an engineer won't accept a job.

Heard in the editor's office:

"All the best Canadian authors are dead — and I'm not feeling very well myself."

COUNCILLOR N. P. FESCHUK

This year saw the election of Pat Feschuk to the Council. Pat was born on St. Patrick's Day thirty-three years ago, in Winnipeg. He spent the first eighteen years of his life in such places as Elie, Clanwilliam, Angusville, and Sundown, Manitoba. In Sundown, rumour has it he was the best goalie the Sundown Hawks ever had.

Since graduation in 1962 Pat has been one of the Association's most active members.

He served on the Association Membership Committee for four years, two of which he was the Chairman. He also spent two years on the Bulletin Committee where the rest of us on the Committee got used to the idea that his assignments would be completed on time.

He acted as Chairman of the Engineer and Resource Management Conference Committee (1969-1972) which was jointly sponsored by the E.I.C. and Provincial Government. He personally recruited most of the speakers and took care of the finan-



N. P. Feschuk, P. Eng.

ces of this Conference which took most of his spare time for the better part of a year.

Pat has also been active in the E.I.C. and has been on the Continuing Education Committee for 3 years, 2 of them as Chairman.

He is President of the Manitoba Chapter of the Soil Conservation Society of America.

Pat has also served as a Manitoba Government Employees Association Councillor, and is on the Manitoba Government Interdepartment Standards and Mettrication Committee and a host of other smaller committees too numerous to mention here.

Since his graduation in 1962, Pat has worked for the Provincial Government, Water Resources Branch where he has risen to become a Senior Design Engineer. Other employees of that Branch are used to seeing Pat hard at work evenings, and Saturdays, and sometimes Sunday. In spite of all his committee work and demanding job, he managed to squeeze in a Masters degree in 1970.

When he is not working until all hours of the night for Water Resources, the E.I.C., or the Association, Pat drops in to see his wife, Vicki, and two sons Grant and David. Number two son, David just missed being Winnipeg's 1973 New Year's baby by three hours.

When asked what he does with his spare time, his only reply was that he sings in the shower and grows begonias.

Those of us who have served on committees or worked with Pat know that he does not just sit on committees. He rolls up his sleeves and does most of the work, even though there may be a lot of work and little glory attached. He invariably ends up as chairman of most of the groups he serves on.

There is an expression that if you want something done, you ask a busy man. The Association members have asked Pat to sit on the Council. Those of us on the Bulletin wish him the best of luck.

-R.M.S.

SOCIALLY RELEVANT OR RELEVANTLY UNSOCIAL

An engineering student recently reported that only sixty percent of the faculty at the University of Manitoba are members of the Association. Thus perhaps a third of the faculty members who might join the Association choose not to do so.

In an age when good communications, rapping sessions and community committees are in high fashion, it is regrettable that a group of the most highly educated should deny the benefit of their intellects to the Association.

As the professors have an important educational role during an engineer's formative years, it is important that they impart some measure of the spirit of the engineering community. Based on performance, faculty members have lived up to expectations as leaders of engineering thought. This source of excellence should not be allowed to dry up. Failure to join the Association is not an indication of strong individual character but rather of social irrelevance.

If we use the older professions as a guideline, we would conclude that to teach engineering a man must be an engineer. Any way we slice it, engineering is our bread.

★ ★ ★

HAVE YOU DONE ANY GOOD PROJECTS LATELY?

Have you done a piece of engineering work recently which you thought was rather interesting? If so, would you please send a brief description of the project to the University Liaison Committee at the Association office. It has been believed that some of the projects described would make interesting items for study and thesis by students while at the same time giving a "real" world dimension to the project.

★ ★ ★

TELL IT LIKE IT IS MAN

Preliminary plans are being made to make further effort to bring an oasis of the outside world into the life of engineer-

ing students. If you are an interesting speaker and would like to lecture for one hour a year, please let us hear from you. Since we are thinking along the lines of a visitation program for first year students, the main thrust is for topics descriptive of the various disciplines. Send your name and preferred topic(s) to the University Liaison Committee at the Association office.

★ ★ ★

Councillors Bouskill and Hicks at Council Meeting



"Charlie, have you heard this one?"



"Gad, Jim, that's enough to make my tie stand on end."

★ ★ ★

Sandhow the strongman could hold a pony at arm's length, so we were told. What we were never told was which part of the pony he grabbed onto.

ON ENGINEERING, ETHICS AND FREE ENTERPRISE

A doctor recently asked me how I felt about working for the government. The reason he asked was that he thought the day was approaching when all medical doctors would be civil servants.

If this is in fact the case, it will probably come about because governments believe it is best for the people or that public pressure will make it a popular political move.

In any case it is probably not news to us that many people have long been suspicious of the various professions and the degree to which they adhere to the ethics they profess. In fact I have heard many engineers, who should know better, criticize other professions, notably the legal and medical professions, for allegedly practising with no other regard than that of padding their already bulging pocket-book. This may come as a surprise to some engineers but I have also heard that there is a great deal of public suspicion directed to the engineering profession for similar reasons. And in an age of consumer protectionism, this could well be the death knell of the so called free enterprise engineering practice. The only way to prevent this is for engineers themselves to get out of their "ivory towers" and down to where the people are.

For one thing, the day has long passed since the public has swallowed the line that anyone has the "public's best interest in mind at all times." To expect an engineer, no less, to forget all about remuneration while he slaves away to reduce the cost of his client's project without reducing the level of service, all the while also reducing his own fee, based on percentage, is to believe the engineer to be superhuman. Furthermore, which engineer when pulling an old plan off the shelf which just exactly fits the bill for a new client, would voluntarily suggest that the client opt for the payroll fee plan, which in fact would amount to little more than a small draughting fee to alter the name on the plans? Of course that wouldn't be fair to the original client, would it? Well why not charge him half the original fee and re-imburse the original client? Ridiculous, isn't it? Yet free enterprise industry often reduces the cost of products once the research and tooling costs have been absorbed. The reason is that industry

is subject to true free enterprise and competition as dictated by government.

And so perhaps the free enterprise engineering practice is not free enterprise after all. Maybe that explains why many industries, commercial establishments and governments have hired their own engineers. It could be that they feel that in a salaried position, where remuneration incentive is dependent on economy in production, an engineer is in the best possible position to practise engineering in accordance with his code of ethics. On the other hand, where an in firm engineering capability is unable to handle major projects, and an independent firm is retained, a company engineer usually acts as a liaison to ensure that the company's best interests are served, thus further compounding the already high cost of engineering. Could it be that industries do not fully trust the engineering firms?

What am I trying to say? Simply this: That in order to best practise engineering, the engineer, in my opinion, should be a salaried employee of the firm for which he is practising. Alternatively, in order to be truly free enterprise as I understand it to be, (and surely most engineers favour free enterprise) engineering services should be offered on a thoroughly competitive basis to give the public the best service for the lowest possible cost and to remove from the engineer the temptation to depart from his code of ethics, to which temptation he is no more immune than any person in any other segment of our society.

—A.J.P.



ELECTION FORECAST

Many months (8) before the October federal election, the Bulletin Committee conducted a poll among its members and predicted that the Liberals would end up with a minority government. SJA on the Bulletin Committee came within one seat of predicting the exact number the Liberals would win. The Committee would have been even closer than it was in its forecast had its average not been influenced by one poor prognosticator, now elevated to Council.

The Committee has now come up with a forecast for the next Manitoba election, and the former Committee member, now on Council, was invited to submit his fore-

cast, which has not been included in the averaging but is listed separately, (in order to give more accuracy to the results.)

	Committee Forecast	Forecast of Anonymous Councillor
NDP	24.4	31
PC	24.4	19
Liberal	6.6	6
Social Credit	1.3	1
Independent	0.3	0

Mr Borowski and Mr. Allard were included in various categories in the forecast, and Mr. Desjardins was excluded in various categories (several of which he has been in, at one time and another.)

✦ ✦ ✦

CULTURE AND RECREATION FOR PRISONERS AND THE RICH

Some people have no couth and resist all efforts, even by a benevolent government, to give them opportunities which are denied to most tax-paying citizens. For instance, how many engineers have ever received free tickets to anything from the Hon. Laurent L. Desjardins, Minister of Tourism, Recreation and Cultural Affairs?

Tickets to Jets hockey games were made available to inmates of Manitoba's various correctional institutions and places of incarceration, compliments of the Department of Tourism, Recreation and Cultural Affairs. Some of the recipients mistook the purpose of the "program" — it was presumably intended to expose them to culture or recreation, or both. Instead they took it as an opportunity to go "touring" — right out of custody. As a result, the custodians of these inmates requested that the benevolent program be suspended.

This may make it difficult for the Jets to balance their budget, as we heard from some engineers with season tickets that they (the engineers) could not afford to attend the playoffs at \$8.80 per ticket, which leaves a lot of tickets for television repair men and those on government hand-outs. Things will be brighter for the Jets next year, because after a summer of unplugging the new hundred thousand dollar washroom facilities in Memorial Park, the plumbers should be able to afford the hockey matches too.

And as for the inmates, are they deprived of all cultural and touring benefits? Not at all. Four recent escapees did not make their exits from a hockey game, since hockey is now off the cultural list. They toured to freedom from a basketball game instead. —S.J.A.

✦ ✦ ✦

IMPOSSIBLE!

In handing out assignments for the April issue, we asked the wife of one of our Bulletin Committee members to submit an article entitled "What it is like to be married to an engineer."

We received the shortest article ever submitted in the 17 year history of this publication. It contained one word — "IMPOSSIBLE."

Out of deference to the committee member, we are not going to give her a by-line or put any initials after the word.

✦ ✦ ✦

TAX GIBBERISH

Anyone who is having problems with his income tax form should just send it in to Bob Rennie of the Bulletin Committee. He is our local tax expert. When Canadian corporations began distributing their annual pink slips to the corporate welfare bums, one such bum on the Bulletin Committee noted the slip reported that dividends in the amount of \$24.00 had been received but that the amount to be taxed would be \$32.00. Some muttering followed. Mr. Rennie, always eager to help the underprivileged, found an article in the Financial Post entitled "What Confusing Dividend Tax Credit Is All About" by Beatrice Riddell. The article measures approximately 32 inches.

In order to help his corporate welfare bum colleague to see the light and understand the new "simple" tax forms, Mr. Rennie sent him the article. Anything that takes 32 inches to explain is normally not that simple, but the Canadian government in its benevolence, has spent millions of our tax dollars explaining to us over the radio that the new forms are simple, so it must be so. The article uses the term "tax jargon." In his letter to his colleague, Mr. Rennie points out: "Like all technical papers, there are certain key words to hang your hat on, such as 'tax jargon.' You

should note in the dictionary that 'jargon' can mean 'chattering, warbling, confused unintelligible language, gibberish and language regarded as barbarous or outlandish.' Maybe they really do know what they are doing in Ottawa." Mr. Rennie continues, "Now that you know why you are paying tax on income you have not received, I am sure you will sign your cheque in a better, more positive frame of mind."

If any of our readers (or should we say if either of our readers) have not yet filed their income tax forms, and need any help at all, just contact Bob Rennie and he will warble his way through it with you.
—S.J.A.

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PUBLIC RELATIONS COMMITTEE

As the Public Relations Committee is a fairly new addition to the APEM committee roster, a brief progress report on the Committee's activities may be of interest. Being relatively new, the committee has little in the way of prior experience to guide its efforts, and must of necessity spend a considerable amount of time in planning its program and assessing how best to serve the "P.R." requirements of the Association. The committee has established three main goals for 1973:

- 1) Establish good relations with the news media (a reception for the news media was held in February) to obtain increased coverage of Association business and affairs.
- 2) Assemble a display depicting notable engineering contributions to society, and arrange for places where the unit can be shown.
- 3) Establish a group of speakers who would be qualified to speak to service clubs, group meetings, etc., on engineering matters of interest to the public.

With regard to this last item, any member willing to assist in the program should contact the committee through the APEM office.

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It may be the year of the rat (or is it the ox) in the eastern hemisphere, but in the west it is the year of the transient (or

is it the toilet.) North America's two windy cities have set the scene — in Chicago, Mayor Daly has announced that there will no longer be any pay toilets in Chicago's air terminals. We assume that by this he means there will be toilets, but no pay. Not to be outdone, Premier Schreyer has announced the expenditure of \$94,463.00 in order that Winnipeg can sprout a relief station in Memorial Park, assuming he gets a permit.

★ ★ ★

We don't need more than one drink on a table at a time. A drunk is not a humorous character. With Mr. Syms and Mr. Mackling and assorted other voices bringing us such inane messages over the radio at our own expense, it is no wonder that liquor sales are soaring. Surely the thought of the tax dollar being spent in this fashion would drive any sane-thinking person to drink.

★ ★ ★

IT'S A LONG WAY FROM CHESHIRE COUNTY TO THE SKEENA RIVER

As Related To R. J. RENNIE, P.Eng.

The contribution made by engineers to the development of their country is often overlooked in historical publications. This attitude may well be changing because of a renewed interest in Canada's history encouraged by Berton's "The National Dream". Indirect reference to the engineering aspects of railroading are made in the book. As a sign of change one may refer to a recent issue of the Engineering Digest which reported on the exploits of a great Canadian engineer, Sir Casimir Gzowski.

This bulletin is not attempting to compete with other organizations that report on Canadian history. It is unlikely that your Committee has either the time or talent for one thing, but we periodically receive leads about Manitoba engineers who have touched a bit of Canadian history and we believe that due reference should be made, no matter how brief, to this contact with the past. One such engineer who was connected with the early development of western railroading, lives right here in Winnipeg at 91 Ferndale Ave. (Norwood).

Bill Walkden is hesitant about giving his age but doesn't mind admitting that he is closer to 100 than to 75, which is enough to classify him as one of the old railroaders.

Bill was born in the county of Cheshire, England. He counts himself lucky that he grew up on a farm in an area where the burning ambition of most farm boys was to be able to do what a man could do, and do it as well as a man could. His education led him, via the scholarship route, through a technical college of high repute, on graduation from which he chose to become indentured to a firm of architects, which permitted him to carry on concurrent complementary education at the Manchester School of Technology. Whether, instead, he should have gone on to Manchester University is a question that will never be answered. He's satisfied with things the way they turned out.

During his four year indenture period, he made the sad discovery that he was not enough of an artist to make a worthwhile architect and that the work he was being called upon to do afforded little scope for the use of his mathematics. Prospects, over there, for advancement being extremely slim, Bill's venturesome spirit, in 1907, took him to Canada where he quickly got his feet wet in Canadianna by assisting in the harvest that year. His early upbringing made this come easy. Next stop, a railway job, trucking freight ten hours per day, six days per week, at 17½ cents per hour, for the railway which has been romanticized by Pierre Berton.

Late in 1907 fortuitous circumstances got Bill a job in the general drafting office of the Canadian Northern Railway from which, in 1909, came the big break, a chance to work under the immediate direction of an engineering Gamaliel in the person of Bridge Engineer W. L. Mackenzie, a real old timer, a man who most enjoyed solution of foundation problems and who delighted in teaching his underlings, but whose vibrant life was snuffed out by a heart attack at fifty-six years of age.

The amalgamation of the National Transcontinental, the Canadian Northern and the Grand Trunk Pacific Railways next found Bill appointed as assistant to former G. T. P. Bridge Engineer J. G. Legrend whose main delight lay in the design of steel superstructures, the bigger the better. Another Gamaliel at whose feet to sit.

But, he too, had his life terminated too early — at sixty-one.

It was in July, 1923, then that Bill was appointed by that top-class Chief Engineer, Howard A. Dixon, to be Bridge Engineer of three constituent railways, united under the title of Canadian National Railways (Western Region) with territory extending from Thunder Bay to the west side of Vancouver Island involving design, construction and maintenance of bridges (like crossing the Kaministiquia, Assiniboine, S. Saskatchewan, Red Deer, Athabasca, Thompson, and Fraser rivers) ferry slips, snowsheds, tunnel linings, turntables, steamship docks, etc.

It was symptomatic of that distinguished Chief Engineer that in making this Bridge Engineer appointment, he had some words of advice to offer. Said he:—

"Bill, this is your job. I shall not bother you much, but remember two things. Keep me out of bridge trouble and handle the job in such a way, that, if you should suddenly drop dead, the job will go on as if nothing had happened."

That advice took such root, that at all times, Bill's next in command, and his eventual successor, Harry S. Rimmington, knew always what the boss had on his mind, why it was on his mind, and even what he was thinking about from day to day. So it came about that it was possible to keep out of trouble and it was accomplished by the man at the top having control of design, having engineers on construction reporting directly to him, and his authority extending also to post construction maintenance. Having firm control of continuing field inspection enabled him to sense incipient problems when simple remedial measures could be adopted and serious problems averted. Sometimes knowledge thus gained had an influence on future designing.

Bill's term of office extended through the dubious prosperity of the twenties, the depression of the thirties and the second world war years. Between 1928 and war's end there were **no salary increases**. Indeed there was an 'across the board' cut of 10% in 1931. Half of this was restored about 1940 but full restoration had to wait until war's end. By June 1945, Bill had 'had enough', and, at some financial sacrifice, took his retirement at that time.

However, he did not allow himself to 'rust out'. After a few years respite, he became involved in various assignments

under the able direction of City Engineer W. D. Hurst and Deputy Engineer Taunton. He was on call with respect to bridges throughout the 1950 flood, and later, in team work with Designing Engineer, J. B. Striowski, made engineering studies which resulted in the final location and design of the Midtown and Disraeli projects.

His ability to select a best bridge site, certainly was respected. As on interpolation amongst City of Winnipeg assignments in 1951, he was retained by Major J. L. Charles, then C.N.R. Western Chief — Engineer, and a long time colleague of Bill's, to assess the merits of several possible locations for a bridge over the Skeena River, near Terrace, B.C., and to recommend one for adoption (this one was to be on the C.N. branch line to Kitimat). Bill recalls that the Skeena is a wicked river which fact can be attested by those who have seen it during a heavy spring run-off. After a thorough study of possibles, Bill made a clear cut recommendation which was endorsed by Major Charles and the completed bridge stands on that site.

Where does one start when asked about some interesting anecdotes of life in Winnipeg during the early 1900's. Bill did not have sufficient interview time to relate stories that probably could fill a good sized book. He noted that in the fall of 1907 the Union Station was just a hole in the ground and that it was not fully occupied until 1911. By today's standards, that was a long time to put a building into service, but then in those days there was scarcely any construction activity during winter months. He recalls too, that wood block paving on a good part of Main St. We all know that prices have increased considerably over the past ten years, but let's have a look at 60 years ago. For instance, Bill moved his house effects, in 1915, between two homes in Norwood, for exactly \$4.00, piano included. Here's another one. In 1914 the cost of structural steel for southernmost viaduct over Main St. was 4¼ cents per pound erected in place.

This article has touched only briefly on the many years of experience of only one engineer. We have barely talked about the technical aspects of this experience. For example, Bill was designing and constructing foundations before soil mechanics was really born, and it would be interesting to read a review of the practice of those days. Perhaps we will develop the means whereby the sum total of the experiences

of Manitoba engineers can be recorded some day for posterity.

Bill is proud of the fact that he is one of those original 1920 members of the A.P.E.M. He wishes to particularly re-emphasize the names of pioneer engineers previously mentioned herein (who were giants in those days). He is glad that his job afforded him many opportunities of contact with C. S. Gzowski (worthy grandson of Sir Casimir) and for many years, C.N.R. system Chief Engineer of Construction. Finally, he would wish to say that any success which he achieved would have been impossible without the loyal support of an exceptionally talented indoor and outdoor staff — names like Rimmington, MacDougall, Lorimer, Hugo, Pepper, McKillop, Conrad, et al.

♦ ♦ ♦

Experience is the label we put on the sum total of all our blunders.

♦ ♦ ♦

Our doctor said a patient was beyond medical help — he had a bad cold.

♦ ♦ ♦

Middle age is when our tripping becomes less light and more fantastic.

♦ ♦ ♦

By the time the wedding rolls around all the father has left to give away is the bride.

♦ ♦ ♦

There was a time when a man finishing a day's work needed rest. Now he needs exercise.

♦ ♦ ♦

It does something to the poet in us when we consider that the stuff the stars are made of is mostly gas.

♦ ♦ ♦

The only possible gift for the man who has everything is Congratulations.

♦ ♦ ♦

Men have their will, but women have their way.

♦ ♦ ♦

A genius in the wrong job looks barely average.

1972 SALARY SURVEY, PROFESSIONAL ENGINEERS — MANITOBA, SASKATCHEWAN AND YUKON

		High Decile	High Quartile	Median	Low Quartile	Low Decile
Year of Graduation	Count	\$	\$	\$	\$	\$
Total	1461	24000	19600	15600	13000	10500
43	16	26250	22092	19500	18160	16236
44	17	30000	24456	19500	16250	15000
45	20	24500	22000	20000	18400	18000
46	17	23250	21150	19000	17300	16800
47	19	25500	22000	18370	16400	15120
48	45	30000	25600	20875	16850	15000
49	75	28000	23500	20000	17000	15000
50	80	28000	24000	19600	16800	15420
51	41	27000	22800	20250	18360	14400
52	33	24000	22000	18000	14892	12500
53	39	24000	22600	20000	17630	15600
54	28	24200	22500	19400	16528	16200
55	37	24000	21132	18500	16140	14000
56	34	23440	19200	17964	15500	13600
57	48	21600	20000	17100	15500	13500
58	66	22000	19100	17000	15500	14400
59	56	20000	18000	16000	15000	14200
60	79	20300	18000	16400	15000	13500
61	76	20000	18000	16000	15000	13764
62	91	18000	16500	15000	13380	12000
63	61	22000	15900	14400	13000	11400
64	66	16700	15150	14280	13500	12500
65	65	16000	15000	13440	12500	11800
66	69	16200	14400	13500	12550	11640
67	52	15000	13600	12200	11880	11240
68	61	14024	12750	11600	11000	9984
69	58	15500	12340	10800	10250	9840
70	38	11000	10500	10000	9360	8880
71	46	10300	9500	9000	8500	8370
72	28	9600	9120	8632	8335	7800

Data derived from members questionnaire December, 1972.

For further information, refer to pages 30-32, Engineering Digest, March, 1973.

**APPLICATIONS FOR THE
FOLLOWING POSITION ARE
STILL BEING CONSIDERED
ASSISTANT REGISTRAR AND
DIRECTOR OF CAREER
DEVELOPMENT**

required by

The Association of Professional Engineers
Of The Province of Manitoba

This position requires a mature, professional engineer with administrative experience. The successful applicant will be responsible to the Managing Director and Registrar and will initially concentrate on the following activities:

- Enforcement of the Engineering Profession Act.
- Co-ordination and execution of the programs of the Employee Engineers Committee.
- Promotion, co-ordination and execution of the programs of the Public Relations Committee.
- Investigations related to academic qualifications and engineering experience.

Salary Range \$14,000 to \$16,000 per annum.

Engineers interested in this challenging position should submit complete resumes to:

T. W. Algeo, P. Eng.,
Managing Director & Registrar
Association of Professional Engineers
of the Province of Manitoba
710 - 177 Lombard Avenue
Winnipeg, Manitoba. R3B 0W9

Please mark envelope - "Application - Confidential".

★ ★ ★

WE REGRET TO RECORD THE
DEATH OF C. H. WREN, P. Eng.

TO: MANAGEMENT

Re: Engineering Personnel Department

I herewith present my final report as a number 1 supercilious efficiency expert on what to do with your engineering department. This will solve all of the management problems and allow you to satisfy your wish and to be good fellows instead of doing your duty as managers and being miserable s-o-b's as you were hired to be.

The key is the Reverse Salary Index (RSI). Actually, by pure computer theory it should have been called Salary Hiring Index (Tentative) but for reasons unknown to a computer it was changed to RSI.

RSI Salary Schedule

Level of Responsibility in accordance with the latest APEM "Classification Guide of Engineering Responsibility Levels"

	Salary
Level "A" (new graduate)	\$30,000/yr.
Level "B"	\$25,000/yr.
Level "C"	\$20,000/yr.
Level "D"	\$15,000/yr.
Level "E" (Chief Engineer)	\$10,000/yr.
Level "F" (Engineering administration)	\$8,000/yr.
Beyond Level "F"	(set by U.I.C.)

Reasons

When an engineer is fresh out of school, his needs are greatest. He can drink much beer. He needs money to chase girls, buy a car, a house and a baby. And maybe even a wife. When he's a chief engineer, his stomach and other organs won't allow a lot of frivolities and his family is gone from the roost and he can't get his stomach behind the wheel of a sports car anyway.

Thus, it is entirely reasonable that he should get more money when he needs it rather than when he doesn't. The RSI accommodates this perfectly. However, it has additional advantages. It would prevent George dePauw and Peter Whatshisname from invoking the Peter Principle to the effect that everyone progresses upwards in the hierarchy until his job requires more competence than he possesses and "He reaches his level of incompetence."

The RSI method allows a person to progress upwards in status and downward in money simultaneously and prevents the Peter Principle from getting established. But wait, there are even greater advant-

ages to be had. No one would be wanting a promotion—except status seekers, wealthy people, and union members, and thus an engineer would tend to stay in a job where he could be productive. If he wasn't productive he could be promoted. A real dud could get to be chief engineer in five years, and at a salary of \$10,000 would not cost much more than those on unemployment insurance.

One of the few rules of the RSI method would be that no one could stay in any bracket longer than ten years. Thus it would take a really competent person 40 years to become chief engineer.

On the assumption that administration is the escape route for the engineering incompetents, the RSI will suitably reward

those worthy of promotion to a top administrative post.

It would be unnecessary to fire anyone no matter how incompetent or lazy, and so meet the social justice criteria of the 1970's.

Conclusion

Unlike the Peter Principle which only points out inherent problems in today's hierarchy training, the RSI method provides a solution. It provides a way by which any engineer can choose the route he wishes to take — the productivity route with financial reward, or the status route with promotion and insolvency.

C. H. TEMPLETON, P. Eng.
Insolvent Administrator

President's Message

By C. R. McBAIN, P. Eng.

Your executive, council and staff have continued busy during the past two months since I last reported to you. Other provincial associations have been holding their annual meetings. Terry Algeo represented A.P.E.M. at the Saskatchewan Association meeting and I attended the Ontario Association meeting. It is interesting to note that more members attend our annual meeting in Manitoba than do so in Ontario despite the great difference in number of members in the two associations.

I had hoped that we would have engaged an Assistant Registrar by now, but as yet we have not found the right man. The search is actively continuing.

We have been making contact with engineering undergraduates at the University with increasing frequency. The Association hosted the graduating class at a dinner on March 22nd, the Managing Director spoke to the fourth year class in Mechanical Engineering and I spoke to the third and fourth year class on Engineering Jurisprudence. This contact with the students has, I believe, helped them to understand the function of the A.P.E.M. and it has certainly helped us appreciate some of the problems faced by the students. We hope to continue and improve upon these contacts.

In our continuing attempt to protect the title of Professional Engineer, the Managing Director and I met with Miss Shirley Bradshaw, Personnel Director of Management Committee of Cabinet, to discuss engineering titles in the Civil Service. We had a good meeting and while it is unlikely that we will get very rapid action, we did get our point across that there is room for much improvement in the handling of engineering titles in the Provincial Civil Service.

We note that the Public Relations Committee is continuing its increased level of activity. I have had many favourable comments from among our membership on this activity and I am sure that it will continue.

The Stardust Ball was a most exciting event this year, with the "drinks around the pool" at the International Inn getting the evening off to a fine start. The Social Committee are to be congratulated for a fine job.

The Annual Meeting of Canadian Council will take place on May 10 and 11 in Fredericton, N. B. Stu Barkwell, Terry Algeo, and I will represent Manitoba at this meeting. We will have a report for you on this meeting in a subsequent issue of the Bulletin.