

## Daft decision

I think the PEO Council has gone off its trolley! Are they seriously thinking of relocating in downtown Toronto to enhance their image? Have they the remotest idea what property costs down there?

For me this proposal is even dafter than their decision to charge the hated GST on our subscriptions when they didn't have to. No wonder they want to railroad it through without any time to obtain membership input.

I would refer you to Parkinson's Law, which I have never found wrong in any respect. He has a section on grand new corporate offices with one-inch pile carpets in the foyer, carmine-lipped secretaries breathing down ice-blue telephones, etc., saying that this is a sign that the company is about to go down the drain.

This gloomy prognostication was amply reinforced by an article in *Forbes* business magazine, citing several instances of the collapse of large corporations following closely upon their moving to grandiose new office buildings in the heart of the city.

Is there no way we can force a vote of no confidence and have an election? No, I suppose not. But it would be interesting to hear other members' views in *Engineering Dimensions*. As things stand, it will all be over by the next issue. No different from the government, really.

*John C. Tysoe, P.Eng., Cheltenham, ON*

## Make it a landmark

Our President-elect, David Adams, P.Eng., asks us to be "sensible" and opt for a "practical solution" in locating a facility for PEO, to save a modest increase in annual fees. Our many-times President, Walter Bilanski, PhD, P.Eng., offers that we "have faith in...our future" and to opt for an annual fee increase to build a facility worthy of our profession. On first pass, I am in the latter camp. Engineering is a major profession that, for too long, has been less than visibly influential in the machinations that constitute our modern society.

As literal builders of the nation, it is time that we demonstrate, through an

eye-catching, architecturally unique, modern and innovative structure, we are at the forefront of change. This facility should capture all the latest technologies that contribute to environmentally sound design, to energy efficiency, and to a unique exterior easily identifiable with our profession. In appearance, it should be so noteworthy that it would be featured in tourism promotion. A revolutionary design will take artistry, creativity, innovation and forward thinking to achieve the desired result. It should be a model for others to emulate. Make it a landmark!

A location in the heart of Toronto, near Queen's Park, is the only site worthy of consideration. It is imperative that PEO maintain close contact with the movers and shakers that affect all aspects of Ontario's political, economic and societal welfare. With the legislature, corporate offices and Bay Street within listening distance, there is a much higher probability that our representatives' voices will be heard than would otherwise be the case from a more distant location.

Our province is entering a period where transportation, infrastructure and environmental issues will be at the top of our priorities. PEO should have a presence at the centre of the action. Most of the decisions associated with this action will emanate from the heart of Toronto!

Are we up to the challenge?  
*Walter F. Petryschuk, PhD, P.Eng., FCIC, Sarnia, ON*

## Accommodating everyone

In the "Location, location, location" special feature article and the President's

Message, "The international picture," both published in your January/February 2008 journal (p. 12 and p. 3, respectively), several reasons were presented to explain why the President and Council believe it is necessary to purchase or build a new building to accommodate PEO's space requirements. The authors made several compelling points why PEO members should approve an amendment to By-Law No. 1 and accept an increase of \$20/member per year to help finance the new building. Some of these points include member access to an engineering library, public transportation, close proximity to provincial government, meeting space requirements, and cost savings. While I agree that the authors make good points that this building will benefit PEO as a whole, the authors fail to address how the building can directly meet the needs of many engineers and the public who are outside a two-hour driving radius of downtown Toronto.

If passed, will the new engineering library be available via the Internet? Will the library have electronic copies of building codes, standards, journals, books and papers available to PEO members? Or, are we to expect that PEO will require engineers and public alike to make the drive to Toronto to use the library?

Speaking of transportation, the author of the "Location, location, location" article made the comment, "there will likely be some driving headaches associated with a central location, although the accessibility of public transit might even inspire some drivers to leave their cars at home." This comment suggests to me that the

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*Paul A. Lebbin, PhD, P.Eng., PE, North Bay, ON*

author did not consider individuals living and working outside of the greater Toronto area. This is not surprising to me as I have heard many opinions from northern Ontario engineers that PEO tends to ignore the needs of engineers outside the Toronto area. I certainly hope this is not the case.

The President made a comment that “engineers haven’t shown this activism” in becoming more active in and with the government. I can see that the argument that additional space for meetings and close proximity to the government will enable engineers to become more active. However, what provisions are being made to get non-Toronto area engineers more involved in PEO? If the amendment is approved, will these meeting rooms be equipped with telecommunications and video equipment such that meetings can be broadcast to engineers who are unable to attend? Will these engineers be able to participate in these meetings from their own offices or homes, which may be many kilometres away from the new building?

In conclusion, my two points are that more accommodations should be available to engineers and also to the public, regardless of their location. I acknowledge the value of purchasing a new office building that will place PEO in the spotlight, but PEO would be short-sighted to stop there. In this Internet age, PEO should increase that public exposure by providing electronic access to the library, enabling the public to view and participate in meetings online, and providing transportation accommodations to those outside Toronto who cannot just “leave their cars at home.”

*Paul A. Lebbin, PhD, P.Eng., PE,  
North Bay, ON*

### More funds for design

I was disappointed that neither W. Bilanski, PhD, P.Eng., or D. Adams, P.Eng., mentioned the design of the headquarters (“Location, location, location,” *Engineering Dimensions*, January/February 2008, p. 12). To me, the headquarters should be a showcase of engineering innovation and be exceptionally energy efficient. If so, whatever

location is chosen it will be a showcase for our profession and thus a cheaper building lot will allow more funds for an innovative design.

*Patrick Capper, P.Eng., Goderich, ON*

### Re: Meaningless membership

Doug Nagy, P.Eng., raised some provocative concepts (Letters, pp. 8-9, *Engineering Dimensions*, November/December 2007) that beg further exploration. In a similar line of thought, last fall I cycled with a P.Eng. who professed that the system in his home country was more to his liking. In the UK, one can be an “engineer” and engage in the workplace in any capacity. However, many engineers prefer to obtain professional status and become chartered engineers, which brings a heightened level of prestige, job opportunity and, in some cases, is required by employers who seek individuals with demonstrated competence against defined standards of practice.

In Ontario, engineers have two primary organizations that serve their interests—OSPE and PEO. OSPE membership is available to all graduates of recognized engineering programs for professional development, career advancement, lifestyle benefits and participation in an advocacy organization focused on improving the engineering profession in Ontario. PEO operates to enact the *Professional Engineers Act* with a statutory mandate to serve and protect the public interest.

Mr. Nagy is welcome to join OSPE at any time and to participate in raising the voice of the engineering community in Ontario. In terms of public safety, PEO licenses Ontario’s engineers and logically operates to expand the scope of public protection to any and all engineering activities that might impact public safety.

It is for this reason that the industrial exemption is being challenged. It has been argued that it diminishes the ability of PEO to impact the professional practice of engineering to ensure standards are being met, and that accountability rests with engineering practitioners.

In today’s society, we appreciate all too well the role of civil, mechanical and electrical engineers, but the myriad vari-

eties of engineering, such as chemical, materials, mining, software, aeronautical and others, can directly impact public safety as well. Some impacts, such as infrastructure failure, may be immediately catastrophic; others are more subtle with a long-term impact on the environment and therefore just as catastrophic on an expanded timescale.

I believe the debate is a good one. I’d be interested to know why some of Ontario’s 200,000+ engineering graduates think they cannot join OSPE when they can join. The combined voice of the engineering community would indeed permit OSPE to raise its advocacy efforts to unprecedented levels.

We’d be pleased to gather opinions on the role of professional accreditation. The P.Eng. designation is in fact the highest prestige level in the engineering profession and OSPE will help engineering graduates prepare and move to full licensure.

I look forward to further discussion on such topics and to the day when every engineering graduate in Ontario is part of the OSPE community.

*Michael Monette, MBA, EDP,  
P.Eng., OSPE president and chair,  
Toronto, ON*

### Worthy of a profession

I think Walter’s message in the most recent issue (“Some things never change!,” *Engineering Dimensions*, November/December 2007, p. 3) was very powerful and disconcerting. He is absolutely correct in pointing out the stagnation in the development of the engineering profession. To put it more bluntly, engineers are, and have been for some time, the blue collar element of the white collar workforce. The profession has somehow become devalued by society, and Walter’s chart is a clear reflection of this.

This paragraph best synthesizes the dilemma:

“Incidentally, I’ve been told that many students are taking more than four years to complete their engineering degrees. Are they taking additional courses, working part time, finding it too demanding, or exploring different areas of engineering before determining a career path? Shouldn’t we know, not only *what* they are doing, but *why*?”

Perhaps engineering education should be viewed as a professional education instead of an undergraduate one. This is the case with the other comparative avocations listed in the graph. A three-year undergraduate program touching all the basic elements required to be competent followed by a two-year period of focused/professional study (civil, chemical, electrical, etc.) might be the answer. If work terms can be factored into the mix, that would be even better.

The cost of an engineering education has risen substantially since my days at school, but the proposed “structured engineering experience” would give the candidates more time to understand career paths or options and grow and mature as individuals. From my experience, it is only the fortunate few who know “what they want to be when they grow up” at that stage in life. The more we can do to elevate the value of the engineering graduate, the more society will ultimately reward them.

I would like to thank Walter for sounding the clarion call. Serving society as an engineer is a noble calling—let’s ensure it remains that way.

*Maurice Battistuzzi, P.Eng., Toronto, ON*

### Putting ourselves forward

Nice to read the article on Diane Freeman’s [P.Eng.] successful run for Waterloo City Council (“What it’s like to run for public office,” *Engineering Dimensions*, November/December 2007, pp. 43-45).

I have always felt there should be more professional engineers holding public office.

I really think one of the problems with our modern society is that there are too few of us engineers involved in formulating public policy. There is a lack of experiential balance in the political system today.

Walter Bilanski’s President’s Message from the latest issue of *Engineering Dimensions* (“Some things never change!,” January/February 2008, p. 3) points out how engineers have fallen behind other professions in both salary and status. I believe that a lot of this can be traced back to our reluctance as individuals to get involved in politics and to put ourselves forward and make ourselves known.

There are far too many lawyers in politics and far too few engineers. Lawyers are smart people in their own way but they lack judgment when it comes to sorting out issues relevant to the physical world. This is simply not in their bag of tricks. They are wordsmiths and debaters and analysts of the legal world. We engineers, on the other hand, do have this other sort of sense and it is an important kind of experience that has been lacking in the public domain for too long.

I think it would be a good exercise for the staff of *Engineering Dimensions* to research this matter and report on the amount of involvement of professional engineers in public office.

When it comes to wartime or times of other serious crises, often lawyers are swept aside and engineers are put into place to get things done when they absolutely have to be done. Remember MIT graduate C.D. Howe, P.Eng., and his wartime responsibility as minister of

munitions and supply in Canada’s federal government? They appointed an engineer when the going got tough and there was no time for dilly-dallying.

I think that Alderman Tony O’Donahue of Toronto was one of the only engineers I can remember in politics, but that was 25 years ago. I am sure there have been others but I suspect they are too few and far between.

*Jim Dickson, P.Eng., Corbeil, ON*

### A shameful viewpoint

It is with dismay that I read in the November/December issue of *Engineering Dimensions* the letter downplaying the growing threat of global warming (“Gore’s misleading nonsense,” p. 9). I recognize that in the interest of free speech you are obligated to publish almost all letters that come to you. But in this present instance the views expressed by your correspondent are so egregious that I am surprised you did not see fit to add a specific editorial note to the effect that the views expressed are not shared by PEO.

To describe Mr. Gore’s book, *An Inconvenient Truth*, as a “trashy potboiler by a failed politician” is to bring shame and embarrassment to our organization. I have no particular feelings towards American politics, but to describe a former vice president and Nobel Laureate as “failed” is, in my view, offensive. And to describe the book as a trashy potboiler is even more offensive. To lift a phrase from the letter, if I am still around in 20 years and your correspondent has still not won a Nobel Prize, I will have the satisfaction of saying, “I told him so.”

*David E. Hepburn, P.Eng.,  
Niagara-on-the-Lake, ON*

### The real science of it all

May I add my voice of appreciation to John C. Tysoe’s letter in the November/December issue of our magazine, on the subject of atmospheric carbon dioxide, the Al Gore medicine show and the Kyoto charade (“Gore’s misleading nonsense,” *Engineering Dimensions*, p. 9)?

***“When it comes to wartime or times of other serious crises, often lawyers are swept aside and engineers are put into place to get things done when they absolutely have to be done.”***

*Jim Dickson, P.Eng., Corbeil, ON*

The *real* science shows an increase in both atmospheric carbon dioxide and world temperature starting at the end of the Little Ice Age, which cooled the planet between about 200 and 500 years ago. The warming trend we are recording today started before the large-scale burning of fossil fuels. About 1000 years ago, long before the start of the industrial revolution (which was based on the use of coal), world temperatures were higher than today—this period is known as the medieval climate optimum.

The cause of these temperature swings is variations in solar radiation—during the Little Ice Age there was an almost complete absence of sunspots. If we really want to be sorry about climate, we should start to worry about the next ice age.

Remember, science is not consensus; science is numbers.

*Arthur B. Harris, P.Eng., Troy, MI*

### Shortsighted plans

Re: Letters in the November/December issue (“Gore’s misleading nonsense” and “More on CO<sub>2</sub>,” p. 9).

I agree with John Tysoe that PEO should take a stand on vital issues. Hopefully those who decide on which stand to take will not be as shortsighted as Mr. Tysoe.

Barring further acceleration of global warming, and the possible recurrence of any of a number of other global disasters that the Earth has seen over the last few million years, Mr. Tysoe may well be able to continue to ignore the trends and laugh and say, “I told you so” 20 years from now. A more realistic and responsible attitude would be to consider the 50- to 1000-year horizon. Without a near-future and huge shift to alternative energies (extensive “fiddling with windmills and solar panels” or perhaps the building of hundreds of new nuclear power facilities), I have little doubt that the next three or four generations will see hundreds of millions of people drowning, starving, or fighting for food, energy, living space and other resources, rather than laughing. Even ignoring the problems of fossil fuel depletion and climate change, our traditional concepts of global commerce must be totally replaced, based as they are on continued increases of both population and per capita consumption. Will

humankind ever learn to look beyond the next couple of decades and plan for a sustainable Earth?

In the same edition, Martin Shaw finds anthropogenic CO<sub>2</sub> “not that significant,” apparently because it is only about five per cent of natural CO<sub>2</sub> production (“More on CO<sub>2</sub>,” p. 9). Surely it is a sufficient amount to constitute a disastrous addition to the atmosphere, even if we were not continuing the major depletion and impairment of the global CO<sub>2</sub> sinks.

*Len Wiseman, P.Eng., Lively, ON*

### Reactor shutdown necessary?

The recent extended shutdown of the Chalk River, Ontario, National Research Universal (NRU) reactor caused a serious interruption in the supply of radioisotopes for diagnostic services in Canada and around the world. Was this shutdown really necessary?

Based on what we know today (mid-January), AECL opted to keep the reactor down after a 2007 November planned outage when it was identified that two pumps were not connected to seismically qualified power supplies, in addition to the normal backup supplies. The Canadian Nuclear Safety Commission (CNSC) said it would not have allowed AECL to restart the unit anyway. This was an apparent licence compliance issue, not an immediate safety issue like a cracked or leaking pipe.

Since an extended shutdown would jeopardize the production of short-lived radioisotopes used for medical diagnosis, this initiated the parliamentary debates on nuclear safety, statements by independent nuclear experts, political intervention to start up the reactor, vitriolic letter exchanges between the CNSC president and the minister of natural resources, and the eventual firing of the CNSC president. Not all compliance issues are immediate safety issues. The risks in restarting this reactor, which has operated for 50 years, and running it for the three or four months until both pumps could have been connected, were hypothetical and minimal.

AECL and the CNSC are both to blame for allowing the issue to escalate; AECL for the apparent (apparent because there is an ongoing investigation by AECL into whether the CNSC knew about the

pumps not being connected) licence non-compliance and its failure to immediately make a risk-benefits case in mid-November for continued operation, no doubt based on previous experiences with the CNSC; and the CNSC for its serious lack of judgment in keeping the unit shut down for a low risk compliance issue.

Some in the media compared the reactor at Three Mile Island (TMI) to the NRU reactor. There is no comparison. TMI, a power reactor, operated at high pressures and temperatures and the NRU is a small research reactor that operates at near atmospheric pressure and temperature. No one was hurt at the TMI event. To put things into perspective, according to AECL statements in the House of Commons, even in the worst case scenario of no cooling and with fuel failures, the radiation dose to workers and the public would be within recognized guidelines. The operator, AECL, is ultimately responsible for reactor safety.

If the nuclear industry in Canada and the many engineering jobs it offers is to survive and prosper some heads need to be knocked together to improve the relationship between the CNSC staff and AECL so that they can discuss things professionally as technical equals before decisions are made and presented to the commission tribunal for approval or resolution. AECL appears to be so intimidated by the CNSC that it made it wary of even suggesting a risk-benefits case to restart the reactor without the connections being made. This must never happen again.

*Donald Jones, P.Eng., Mississauga, ON*

### Correction

A letter we printed in the January/February 2008 issue (“Finding fault,” p. 10) was incorrectly attributed to Herman Oussoren, P.Eng. The letter was authored by Harry Oussoren, P.Eng., of Guelph, Ontario.

Letters to the editor are welcomed, but should be kept to no more than 500 words, and are subject to editing. Publication is at the editor’s discretion; unsigned letters will not be published. The ideas expressed do not necessarily reflect the opinions and policies of the association, nor does the association assume responsibility for the opinions expressed. All letters pertaining to a current PEO issue are also forwarded to the appropriate committee for information. Address letters to [jcoombes@peo.on.ca](mailto:jcoombes@peo.on.ca).