

The gridlock effect

I am writing in response to the July/August 2004 issue of *Engineering Dimensions*. The following words in PEO President George Comrie's message (pp. 3, 23) caught my attention (my emphasis): "In fact, *engineering is not even on the government's or the public's radar screen* as an issue for public policy...A true professional has two essential attributes: *competence and responsibility*... I believe the self-regulating profession provides exceptional value to our society."

As well, I note in the same *Engineering Dimensions*, the title of an article by Michael Mastromatteo (my emphasis): "*Low profile hinders P.Engs at policy table*" (p. 16).

I emphasize in the above quotations essential words describing evidently primary issues confronting Ontario's engineering profession. If I would attempt to summarize these issues in one sentence that tries to place the issues in relation to one another, I would say: Although a self-regulated engineering profession provides exceptional value to Ontario, by spontaneously combining competence with responsibility, the people of Ontario are woefully ignorant of this value.

Must it always remain the fate of engineers to work in the "invisible profession?" Perhaps not.

It seems to me that we can best raise our visibility in the public mind by demonstrating our competence in delivering solutions to problems in dimensions of public experience where the public is most competent to recognize and appreciate our talents.

For example, the greater Toronto area (GTA) has a famously "gridlocked" transportation system. The problem is directly experienced by the Ontario public every day. Engineers are the only people who are technically capable of solving this problem. If we cannot come up with good technical solutions, we do not deserve the respect of the public, and by default we will yield power to others with more ideologically driven, low-tech solutions. In fact, we are already yielding power.

As Mr. Comrie knows, I have been working for the past two years on developing a new form of intelligent transportation system (ITS) technology which, when applied to expressways, is called Expressway Traffic Optimization (ETO). ETO is a practical, cost-effective, high-tech ITS solution to expressway traffic gridlock. ETO requires absolutely no special equipment or maintenance for vehicles. ETO uses simple, public, luminous signals to guide individual drivers to maximize traffic efficiency while minimizing driver stress, fuel costs, traffic hazards, pollution and vehicle braking and wear.

I can't think of a better way for the Ontario engineering profession to work in its own interest, while simultaneously providing dramatic, visible, daily proof of the value of engineering to hundreds of thousands of grateful GTA motorists, than by relieving their daily suffering on congested expressways.

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Deserving a higher grade

I read page 59 of the September/October 2004 issue ("Failing grade for P.Engs on professionalism?") with incredulity bordering resentment.

In that article, public policy consultant Erin O'Connor made a statement that engineers strive for the same level of respect as lawyers and accountants. In the background, the chartered accountants category is portrayed as receiving an "A" on its report card, while professional engineers received an "F."

Both of these portrayals are grossly unfair to the engineering profession. The general public is acutely aware of the astonishing scandals in the accounting industry over the last five years, involving the bankruptcy of such major corporations as Enron, WorldCom, Adelphia Communications and Parmalat. Money simply "disappeared" at cumulative totals approaching more than \$100 billion. Accounting companies went bankrupt and their officers claimed incompetence rather than admit to criminal intent. The general pub-

lic also has a very low opinion of the ethics and competence of lawyers.

I am not aware of any engineering-related disaster in the last 10 years in North America that would come to within four to five orders of magnitude of the losses resulting from the incompetence of the accounting profession with involvement of the legal profession. I believe that the public holds engineering in a much higher regard than either of these two professions. I believe that Ms O'Connor's thesis is gravely flawed.

Given the inherent nature of science and technology, a career in engineering is by definition a career of professional development. Accounting and law may not have changed for centuries, but major advances in science and technology occur every decade. Many of our members are working on projects that are so advanced that they are only completely understood by their own project team members. If this is not obvious evidence of professional development, I don't know what is.

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Response to outsourcing

I read with interest the comments of Edward J. Farkas, P.Eng. ("Outsourcing is suicide," September/October 2004, p. 8) where he takes exception to some of my earlier comments ("Global competition," May/June 2004, p. 8). I understand the sentiments expressed by him (and, to a degree, I share the same). But we don't live in an isolated world. For the record:

- I have been to China. I work with Chinese engineers and I have come to respect highly their knowledge and skill (just as I do Indian engineers with whom I worked for many years in technical committees of the American Foundry Society).
- I did lose my job and had to find a solution to my predicament (which I did).

We must not forget that we all contribute to this development. Nobody buys goods at a higher price because they are

100 per cent manufactured locally. We look for the best deal. In most cases, we don't even know the origin of goods/services. Who really knows how much of our computer technology sold under "local brands" is generated offshore? The word "competition" is a loaded term. We don't have to go to China. Let's look at the disputes with our neighbour to the south with softwood lumber, beef, etc. When we accepted the priority of capital over labour, we set the baseline for this development. We have no problem importing cheap raw materials but reject the effect of "cheap labour." We have no problem importing skilled tradespeople instead of educating our own. We can't compete globally unless we have somebody offshore with the buying power to acquire our products. If we look beyond the aspects of engineering, it seems logical that an equalization of the unbalances now existing is unavoidable—just as we can't inflate

a balloon beyond a certain pressure before it bursts.

I agree with Mr. Farkas that the results for us personally are not always what we had hoped for and wanted. But by our own behaviour we support this development—in most cases unconsciously. Let us look beyond our own small world and try to understand the reasons for such development.

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Ignoring the real issues

The November/December 2004 President's Message ("Recent *Building Code Act* amendments fail public interest test," p. 3) saddened me.

I have been at the PEO office twice with a delegation of concerned engineers, where we were told that nothing could be done about Bill 124. Then I met with staff at the Ontario ministry [of Municipal

Affairs and Housing] and was told how to comply. All concerns were brushed aside.

PEO and engineers in general fail the public interest test—the public isn't interested, and doesn't know and doesn't care.

For the President to hide the real issues and his sincere concerns in four columns of boring verbiage is a symptom of the problem. Will the last engineer leaving the room please turn off the lights?

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