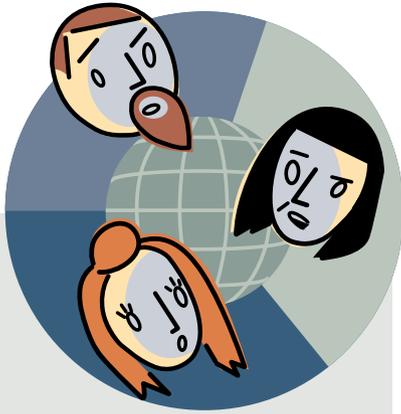


[LETTERS]



CHALLENGING THE GEA

I was interested in the May 6 OCEPP conference panel discussion on the *Green Energy Act* (GEA) and, more specifically, the impacts on communities. But I am not interested in the “love in” that seemed to have been arranged.

That panel would not, in my opinion, openly challenge the policy and public interest problems that have become apparent with the out-of-balance electricity pricing, closed-door policy for site release and system development, loss of municipal control of development and planning, loss of public input, and loss of the public’s property rights and enjoyment of property rights.

OCEPP appears to have involved only those who set and implemented the existing policy, or those who benefit from it. In fact, the panel chair is from CanWEA, an industry lobby group!

What about involving those who have challenged the *Green Energy Act* and its impacts on the public and private person? What about the significant and real concerns of people and communities? What about the significant impacts on development and environmental assessment policy? What about an engineer’s duty to the public?

If you do not challenge and address the significant concerns with renewable energy development in Ontario—including the significant concerns over the GEA and impacts on the public—you run the risk of irrelevance.

An irrelevant OCEPP will not sustain itself and, in my opinion, does not deserve sustenance from the public or engineers.

Karl Piirik, MEng, P.Eng., Thunder Bay, ON

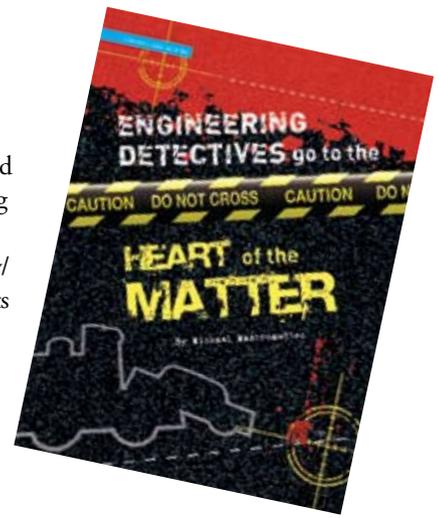
THIS IS MY LIFE

I’ve been a P.Eng. for over 50 years and hardly ever read a chemical engineering report in *Engineering Dimensions*, or previous journals. Now, in the January/February 2011 issue, I have two reports in my field...finally, on my last breath.

Regarding forensic engineering (“Engineering detectives go to the heart of the matter, p. 46), this report read as though this was my life from 1960 to 1993 as a plant design engineer and an associate process engineering consultant for Dow Chemical of Canada Ltd. The only place you are going to find experienced forensic engineers is in the OFRH (Old Farts Retirement Home). Chemical engineering business, as I knew it, is on the decline in Canada. Why introduce this field 50 years after the fact?

The forensic stories I could tell would occupy this feature for months, mostly LMAO, particularly, trying to determine what tripped the plant at 2:30 a.m. (first out analysis from 100 trip points on our datalogger).

Richard Hawrelak, P.Eng., Sarnia, ON



CORRECTIONS

On page 69 of the May/June 2011 issue, we failed to include this author’s note about Robert Dick, MEng, P.Eng., which should have accompanied his article on artificial outdoor lighting.

Robert Dick is a founder and principal of the Canadian Scotobiology Advisory Group. He developed the national Light Pollution Abatement Program for the Royal Astronomical Society of Canada and the Canadian Dark-Sky Preserve Program for national and provincial parks. As well, he taught astronomy at Carleton University and the University of Ottawa for a total of 25 years.

On page 8, the PEO election results box didn’t reproduce properly. Below is the corrected version.

HOW YOU VOTED

President-elect		Cliff Knox	1073
Denis Dixon	6312	Nick Monsour	942
Corneliu Chisu	2504		
Chris Roney	2390		
Vice president			
Patrick Quinn	5091		
John Vieth	2274		
Shokoh Fatahi	2207		
Allen Jones	1573		
Councillor-at-large			
Michael Hogan	5727		
Roydon Fraser	5702		
George Comrie	1696		
Ranee Mahalingam	1595		
Peter Cushman	1257		
Allen Lucas	1228		
Bob Rushby	1201		
Anthionios Partheniou	1089		
		Eastern Region councillor	
		Paul Ballantyne	acclaimed
		East Central Region councillor	
		Thomas Chong	1558
		Changiz Sadr	1239
		Northern Region councillor	
		Michael Wesa	313
		Ramesh Subramanian	122
		Western Region councillor	
		Wayne Kershaw	1162
		Chris Maltby	975
		West Central Region councillor	
		Robert Willson	1091
		Phil Maka	937
		Galal Abdelmessih	391

EXPECTING RESPECT

I have a habit of saving up several issues of *Engineering Dimensions* to read during vacation. Yes, my family and non-engineering friends think I'm pretty nerdy. A benefit is that, by condensing the time between reading them, the articles and letters become much more connected.

For decades, it seems there have been ongoing analysis, debate and general hand-wringing about the low proportion of women in engineering and lack of respect for our profession. On the topic of female engineers, I have to agree with Mr. Hastings' point of view ("President seems to support discrimination," *Engineering Dimensions*, September/October 2010, p. 53). Over my 30-year career, I have also not witnessed discrimination against female engineers or barriers to female entry into the profession. I have taken female engineers-in-training into industrial environments, including the hardened automotive sector, where they were always treated with respect and encountered other female engineers.

Mr. Sobik's friend may have been too quick to judge the female-related questions as discriminatory and her resulting anger may have cost her an opportu-

nity ("Glimmer of discrimination still," November/December 2010, p. 85). It's pretty much a given that young women will get married and have children. So, if that was truly a problem for the interviewer, the young woman wouldn't have been there at all. Just maybe, this was a progressive company that actually supported young, professional women around child rearing because they cared about retaining trained people.

During my career, I recruited many engineers, both male and female. For every search, many resumes came in but so few actually met the job requirements. Eliminating any of the good ones because they were female would have been equivalent to shooting myself in the foot. The reality is that young people, male or female, are upwardly mobile and don't stay very long anyway, unless the opportunity for growth exists. It's time for PEO to stop the navel-gazing about why women don't enter the profession and also implying that it's because we discriminate against them. I am offended by that notion. For just as long, universities have tried to attract women to engineering programs, also to counter the perception of discrimination. Their attempts to affect the numbers have failed.



Despite the creation of the Ontario Society of Professional Engineers (OSPE), the perception of the profession has remained about the same throughout my career—respected and good for signing passport photos! I am okay with that. I concur with Patrick Quinn's comments about respecting each other before expecting respect for our profession ("A lack of respect," November/December 2010, p. 84). The language used in some letters is unkind and disrespectful, and when it's directed at a PEO president I find that particularly offensive. Our members should have the good character and communication skills to express counter opinions without being nasty.

David Gelder, P.Eng., Mississauga, ON

USE OF TERMS

Re: The article "Engineering detectives go to the heart of the matter" that appeared in the January/February 2011 issue of *Engineering Dimensions* (p. 46) and the letters by Mr. Clayton and Mr. Perovic that subsequently appeared in the March/April 2011 issue ("Attributes of a forensic engineer," p. 78, and "It's not all about failure," p. 77).

My dictionary defines the word "forensic" (derived from the word "forum") as follows: "relating to law courts or to public debate." Hence, the term "forensic engineering" would suggest that engineering information has been gathered for use in a legal matter (or public debate/forum).

Rather than using the term "forensic engineering," I would have much preferred the original article to have discussed the more general subject of "failure analysis." If the investigative techniques and results of a failure analysis are of an engineering nature, and if those results are going to be used in legal proceedings, then that body of work could be referred to as forensic engineering.

Many larger organizations conduct in-house investigations of failures that occur in their components, equipment, structures, etc. They use their own personnel and do not rely on "hired

guns" (see Mr. Clayton's letter in the March/April issue). These investigations strive to find the root causes of failures and to suggest ways of preventing similar failures in the future (failure analysis and prevention). This kind of work might never be presented in a court of law or be discussed in public—hence, it is not strictly forensic.

In so many cases, the investigative methods used in a failure analysis involve science rather than engineering. This is particularly true if the failure involves environmental degradation (e.g. corrosion) where the following analytical techniques are often used: optical microscopy, scanning electron microscopy, "wet" chemistry, X-ray diffraction, X-ray fluorescence, infrared spectroscopy, optical emission spectroscopy, X-ray photoelectron spectroscopy, ultrasonics, radiography, various other kinds of non-destructive testing, etc. Engineers may not have in-depth, hands-on experience with these techniques. Hence, science rather than engineering may comprise the major part of a failure analysis and we must understand that engineers do not have a lock on effective failure analysis or forensic work.

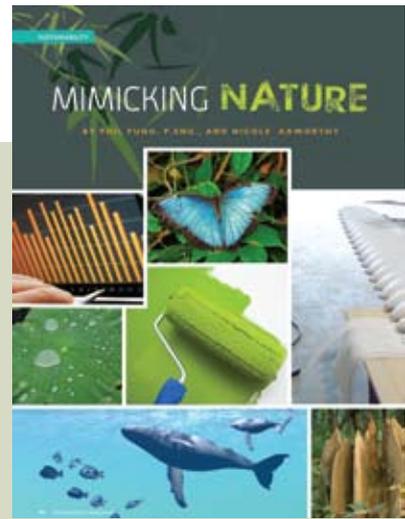
Frank N. Smith, P.Eng., Kingston, ON

[LETTERS]

POWER SOURCE BACKLASH

This is the second article the magazine has published on the Whalepower turbine blade ("Mimicking nature," *Engineering Dimensions*, March/April 2011, p. 46). Wind turbine power has had a rapid introduction into the market as an environmentally friendly source, particularly by the Ontario government. Lately, however, there has been a negative backlash from the public in the areas where they have been installed—issues such as noise and sickness from the low frequency generated. This whale blade seems like it might solve some of these issues, as well as provide increased operating efficiency. I have not seen any being used or proposed as a substitute. Is it because of the higher cost? I would think the government could partially subsidize their use to eliminate the negative publicity it is creating.

William Foote, P.Eng., Mississauga, ON



A COMPLEX ISSUE

The letter by W. Ernst Eder, P.Eng., raises interesting questions ("Sustainable solutions," *Engineering Dimensions*, March/April 2011, p. 76). A serious concern I have is if we base engineering decisions on hope instead of proven facts. But as to the problem raised, if we do not sequester CO₂, a questionable solution as pointed out, it remains in the atmosphere. The oxygen is firmly bound to carbon. How do we separate the two to make oxygen available? Plants do use CO₂ as a nutrient and release oxygen. But with increasing populations and evermore paving over of arable land and consequently reduction in oxygen-releasing vegetation, what are reasonable solutions? Good ideas, anybody? An excellent book discussing the existing complexities is by Swiss engineering professor Jacques Neiryck, *Le huitième jour de la creation*. While there is a German translation, *Der göttliche Ingenieur*, there appears to be no English version of this fascinating work at this time.

Dieter S. Leidel, P.Eng., Barrie, ON

BETTER SOLUTIONS

The article "Mimicking nature" from the March/April 2011 edition (p. 46) was a great reminder that we should be looking to nature to help solve the problems at hand. This is not really a new idea, but one that is not always thought of. One resource I would like to share is a website that is a database of solutions learned from nature: www.asknature.org. Hopefully this is helpful to some readers or the authors of the article.

Aside from looking to nature for the solutions, sometimes we need to step back and look at why our current solutions are not working. It may not be that the solution is inadequate, but those implementing it do not have the right information or the right motivation to fully utilize it. I'm sure we all know of some better solutions than ones being utilized in our businesses, so we need to ask what is holding us back, and try to fix that.

Alan Gerth, P.Eng., Whitby, ON

SUSTAINABILITY CONSIDERATIONS

Engineering Dimensions March/April 2011 was an excellent issue. I especially like the "Engineers: It's time to work together and save the world" article by Joshua M. Pearce, PhD (p. 55).

I wonder if it isn't time to add lack of sustainability considerations to our list of incompetencies and misconducts. Designing yesterday's buildings and bridges for tomorrow's world is as bad as designing a bridge that collapses or a retaining wall that fails.

David Moffat, P.Eng., Toronto, ON



Letters to the editor are welcomed, but should be kept to no more than 500 words, and are subject to editing for length, clarity and style. 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 naxworthy@peo.on.ca.