

QUEEN'S PARK EVENT BUILDS ON P.ENG.-POLICY LINK



Photo: Georg Kralik, P.Eng.

OSPE Director Alourdes Sully, P.Eng., with MPP David Zimmer, LLB.

By Michael Mastromatteo

PEO'S EFFORTS to build stronger relations with legislators received a symbolic boost with the re-presentation of PEO's President's Award to MPP David Zimmer, LLB, parliamentary assistant to Ontario Attorney General Chris Bentley, LLB.

The presentation took place September 24 as part of PEO's third annual Engineering for Ontario Day reception.

Over 30 MPPs and cabinet ministers, including Attorney General Bentley, gathered in the members' dining room at Queen's Park to meet with PEO members, chapter representatives, staff and others in the Ontario engineering community.

The annual Queen's Park event is part of PEO's ongoing Government Liaison Program, which is designed to raise awareness among policy-makers of the importance of self-regulation in engineering and PEO's role.

In accepting the award, Zimmer described himself as "a closet engineer" who has taken note of the profession's efforts to make a contribution to public policy development for the greater public good.

"When members of PEO first came to see me in 2003, I knew that engineers were out there doing great work, but not really getting much notice on the public's radar screen," Zimmer said. "And now, five years later, I see that engineers are taken seriously in their efforts to make an impact in public policy development."

Zimmer has held the "engineering file" within the Ontario government since 2003. He originally received the PEO President's Award in May at the Professional Engineers Ontario Order of Honour gala.

The attorney general later joked that despite Zimmer's award, he wouldn't trust him to design a bridge or building. Bentley said that since becoming attorney general, he has made note of PEO's efforts to regulate engineering to the high standards expected of self-regulating professions.

"The people of Ontario are assured that we have a group of professionals who meet the highest levels of training and preparation, and whose performance standards are expected and, in fact, demanded," Bentley added.

The attorney general also praised PEO for its plans to establish the new Ontario Centre for Engineering and Public Policy, an executive director for which was announced October 21 (see p. 10).

In welcoming MPPs to the reception, PEO President David Adams, P.Eng., outlined some of the latest initiatives undertaken by the regulator, including the public policy centre, a proposed new comprehensive licensure model and an enhanced, structured internship program.

He said engineers are well positioned to evaluate the technical components of proposed public policies.

"We're not trying to make policy, but are lending our technical assistance and expertise to those who are," Adams said.

The 2008 Engineering for Ontario Day event concluded with a reminder from PEO President-elect Catherine Karakatsanis, P.Eng., that engineers remain committed to working with government leaders in the interests of public safety and protection.

"Today's event provides the opportunity to celebrate PEO's 86-year history as a self-regulating engineering profession in the province and our contribution to maintaining a high level of professionalism among engineers working in the public interest," Karakatsanis said. "PEO partners with government to find solutions for public safety, welfare and environmental issues that face government every day."

NOTE

See centre insert for complete coverage of PEO's Engineering for Ontario Day.

P.Engs take note of immigration act change

By Michael Mastromatteo



The act changes, effective since June 18, 2008, give the federal immigration minister authority to order “priority processing” of certain categories of immigrant.

The engineering community is monitoring recent changes to Canada’s *Immigration and Refugee Protection Act* that allow for the fast-tracking of applications by immigrants with professional credentials.

The act changes, effective since June 18, 2008, give the federal immigration minister authority to order “priority processing” of certain categories of immigrant.

The act changes are said to be designed to respond to a growing backlog of immigrant applications—estimated to be 925,000 people waiting up to six years for a decision, growing to 1.5 million by 2012—and to help meet labour market shortages in certain trades, professions and other work areas.

Canadian engineering regulators are monitoring the impact, if any, the changes might have on the licensing and registration of international engineering graduates. Engineers Canada CEO Chantal Guay, P.Eng., was among a group of stakeholders to meet with Minister of Citizenship and Immigration Diane Finley August 15 to discuss the details of the recent act changes.

The consultations focused on identifying critical occupational shortages in trades and professions across Canada, the role of immigration in responding to them, and any barriers to foreign credential recognition. This information will be used to develop instructions for immigration officers on moving along applications of those claiming occupations identified for priority processing. The ministerial instructions, to be issued this fall, will focus on applications in the federal skilled worker category.

Before the act change, applications from skilled workers were processed in the order they were received, regardless of the workers’ chances of finding work in Canada, and every application was processed to a final decision. This obligation is now removed, but the changes apply only to applications received on or after February 27, 2008, the day after the federal budget was introduced.

PEO currently licenses as many internationally educated as Canadian-educated engineers.

PEO APPOINTS DIRECTOR for new policy centre

By Michael Mastromatteo



Donald C. Wallace

Donald C. Wallace, PhD, former associate provost of the University of Ontario Institute of Technology (UOIT), has been appointed executive director of PEO's new Ontario Centre for Engineering and Public Policy.

The appointment was announced by PEO CEO/Registrar Kim Allen, P.Eng., and President David Adams, P.Eng., October 21.

Wallace has had extensive involvement with government ministries and in policy analysis. His background in policy, resource and regulatory issues was seen as a key strength in fulfilling the centre's mandate of engaging the engineering profession in the development of public policy.

In addition to launching the centre, Wallace will be involved with other engineering stakeholders, including the Ontario Society of Professional Engineers, Consulting Engineers of

Ontario, Engineers Canada and the deans of Ontario's 15 engineering schools.

Reporting to the CEO/registrar, Wallace will work closely with PEO's president, council, Government Liaison Program representatives and staff.

Key priorities include researching and developing policy papers, hosting an annual engineering and public policy conference, establishing the centre's *Journal of Engineering and Public Policy* and collaborating with partners to bring an engineering perspective to major technical problems.

Wallace will also help create links between the centre and university programs devoted to engineering and public policy.

"Engineers and applied scientists are increasingly called upon to act as key advisors to policy-makers in both the public and private sectors," Wallace says. "Major changes in each of these areas are forcing leaders in government, industry and academe to adapt old rules to a new environment. The establishment of the engineering policy centre represents a prescient and courageous response to this reality."

Prior to his role at UOIT, Wallace held senior positions at York University.

ENGINEERING SALARIES CONTINUE GROWTH FOR 2008

By Tina Georgiou and Eleana Rodriguez

ALTHOUGH THE CANADIAN ECONOMY has been struggling this year, results of the 2008 Ontario Society of Professional Engineers (OSPE) employer compensation survey show that median base salaries for engineers of all levels experienced year-over-year growth. In addition, levels A, B, D and E experienced base salary increases that outpaced the increase in Ontario's Consumer Price Index (CPI). Once again, the survey indicates that recent entrants to the profession receive the largest increases.

This is one of several findings from a recent survey conducted by OSPE and Mercer (Canada) Ltd.

A total of 177 organizations across all major industry groups in both the private and public sectors submitted compensation data for nearly 15,300 professional engineers in 2008. The survey reports data for engineers working in organizations of all sizes, across a broad array of industries located in 17 metropolitan areas in Ontario.

COMPENSATION INCREASE GAP GONE

Pay increases remained relatively stable in 2008. Notable, however, is that the salary increase gap that existed in 2006, and moderated in 2007, between senior engineers and their more junior counterparts has disappeared, suggesting employers are experiencing a shortage of new talent and are willing to pay new hires competitively and provide them rapid compensation progression.

From 2007 to 2008, the CPI for Ontario increased 2.8 per cent, while the median base salary for level A experienced the largest year-over-year increase at 4.5 per cent. The next largest increases took place at levels D and E at 4.3 and 3.6 per cent, respectively. Overall, median base pay is up for all levels over

PERCENTAGE CHANGE IN MEDIAN BASE SALARY—CORE SAMPLE										
Engineering level	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
All	1.4	5.6	3.3	2.4	2.0	3.6	-1.8	2.1	3.4	2.8
Level A	1.6	7.9	8.3	-3.8	0.0	-2.0	3.3	2.0	2.9	4.5
Level B	1.7	6.7	7.6	-4.1	0.3	2.1	3.6	0.0	2.2	3.0
Level C	2.2	4.9	3.2	0.9	2.7	1.9	2.3	2.7	2.4	2.7
Level D	2.2	4.0	4.0	1.4	0.6	5.3	2.3	2.5	2.8	4.3
Level E	3.1	2.4	4.0	1.1	1.1	3.1	2.6	3.5	3.6	3.6
Level F	4.4	3.7	6.1	0.6	0.3	2.2	4.4	5.1	3.6	2.2
CPI Ontario	1.9	3.2	3.5	1.2	2.5	2.4	1.9	2.4	1.6	2.8

2007 with increases ranging from 2.2 per cent to 4.5 per cent.

SALARIES LOW VS. GENERAL INDUSTRY

Although salaries for engineers have increased by an average of 8.3 per cent between 2006 and 2008, total cash compensation for all engineering levels lags behind that of general industry. At levels A and B, the difference is less than 5 per cent. But for the majority of the incumbents in the sample (75 per cent), the discrepancy is more pronounced, with as much as a 23 per cent difference at level E.

INDUSTRY CHOICE STILL RELEVANT

The differences in pay across primary industries can be significant. “Non-durable manufacturing” (includes oil and gas companies), “other industries” (a category comprising resources-mining metals employers) and “consulting services” are the top industry sectors in the sample. The disparity between the top-paying industry and the lowest decreased somewhat from 45 per cent to 36 per cent this year. That is, the “other industries” category has average total cash compensation levels of as much as \$124,000, while the public sector and not-for-profit industry is at \$91,000.

LOCATION REMAINS KEY

Relative to the provincial median base salary, engineers who work in Sarnia, Ottawa and Mississauga receive the highest base salaries; those in Guelph, Hamilton and Kitchener/Waterloo

receive the lowest. These findings are consistent with the 2006 and 2007 survey results.

ABOUT THE SURVEY

In 2005, OSPE partnered with Mercer to undertake the employer compensation survey of engineers in Ontario. Now in its 55th year, this survey helps establish meaningful criteria for levels of engineering responsibility for the benefit

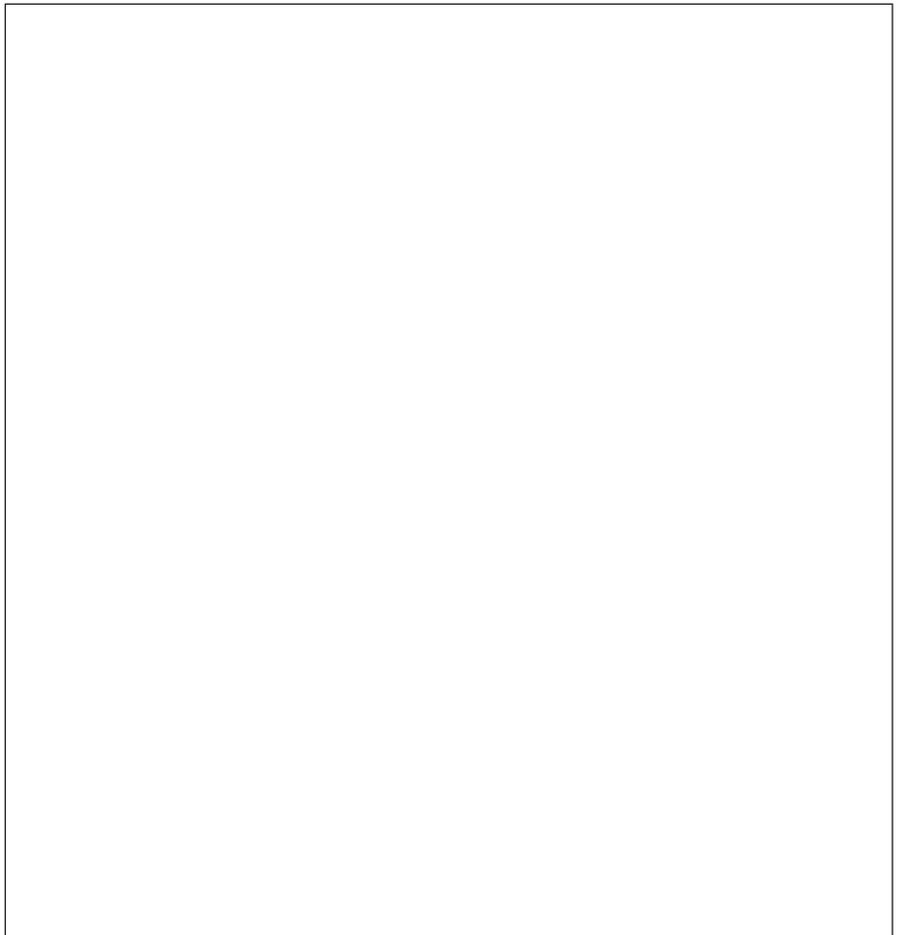
of both engineers and employers of engineers, and provides current data with respect to actual compensation levels for engineering work.

The survey results are available in PDF format for employers and OSPE members, and are also presented in an online format through Mercer PayMonitor®, allowing employers to effectively evaluate their organization’s competitive position and analyze market data.

An OSPE advisory committee comprising representatives from industry and the engineering and human resources communities oversaw the design and implementation of the survey.

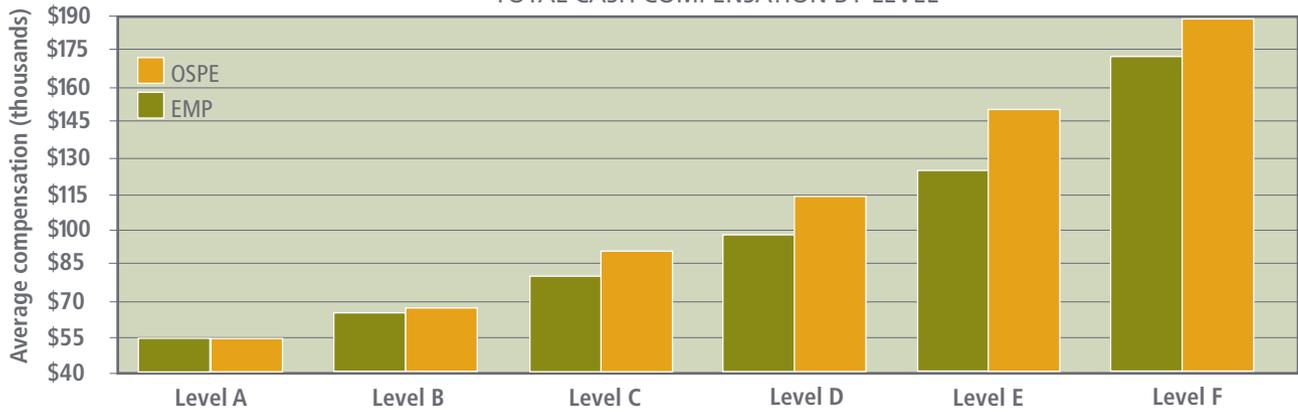
Employers and OSPE members can order the *2008 OSPE Employer Compensation Survey* through Mercer at www.imercer.ca/ospe, 800-631-9628 or info.services@mercer.com. OSPE members can access a complimentary copy of the Member Market Compensation Summary at www.ospe.on.ca.

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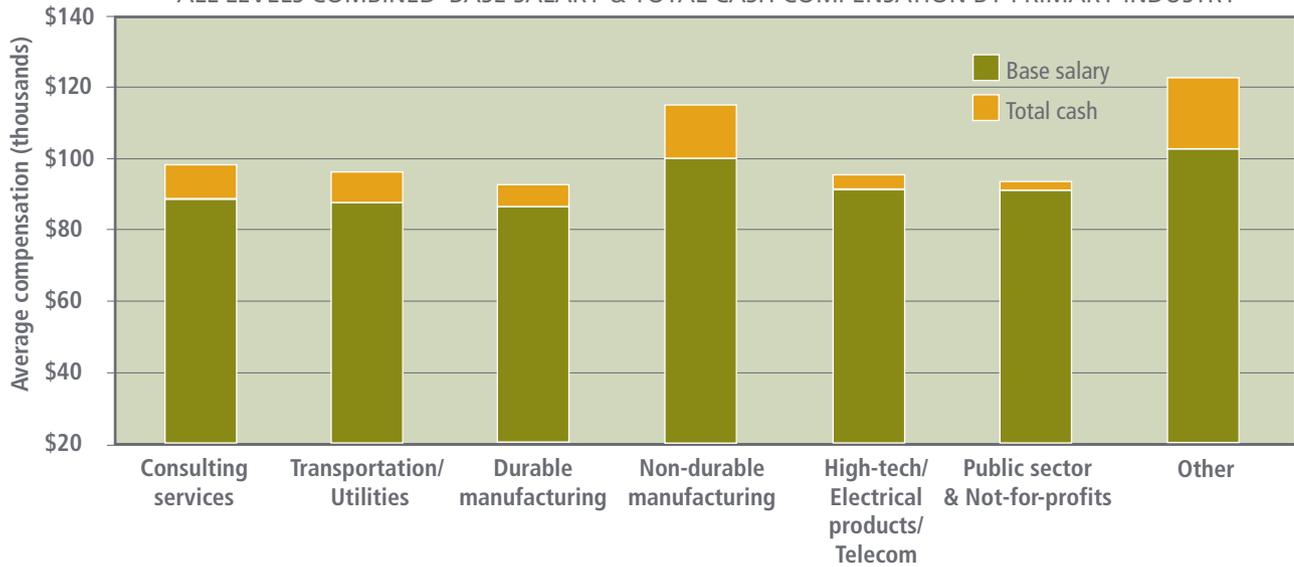
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TOTAL CASH COMPENSATION BY LEVEL

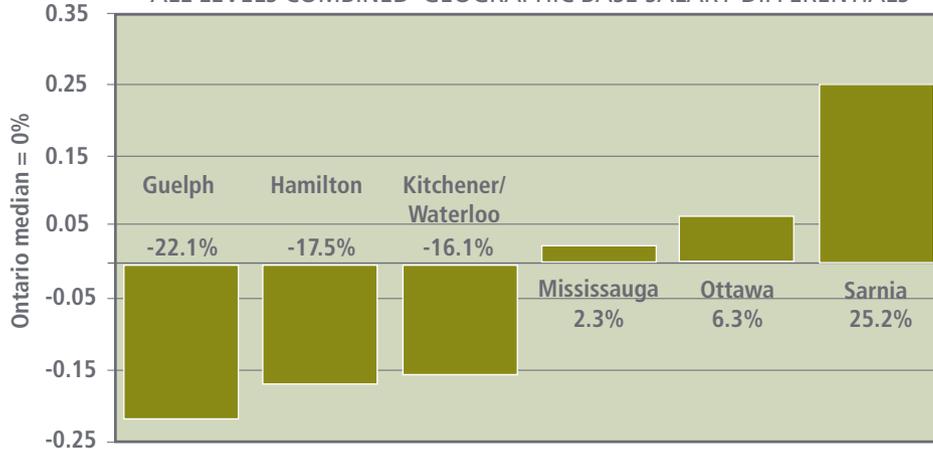


Note: EMP refers to Mercer's 2008 Executive, Management & Professional Compensation Survey

ALL LEVELS COMBINED—BASE SALARY & TOTAL CASH COMPENSATION BY PRIMARY INDUSTRY



ALL LEVELS COMBINED—GEOGRAPHIC BASE SALARY DIFFERENTIALS



2008 COMPENSATION AT A GLANCE

- stable pay increases for all engineering levels
- engineering salaries for all levels lag behind general industry
- considerable pay differentiation between industries
- previously reported geographic differences across the province remain

PEO CHAPTERS, OSPE exploring collaboration

By Michael Mastromatteo

A committee established by Ontario's engineering advocacy body is looking at ways of working with PEO's chapter system.

The Ontario Society of Professional Engineers' (OSPE) Chapter Liaison Committee (CLC) was envisioned over two years ago to promote increased collaboration between OSPE and PEO's chapters.

An outgrowth of OSPE's Centre of Engineering Excellence, the committee aims to enhance the relationship between the regulator and advocacy body through possible joint promotion of chapter events, programs and related activities.

At a September 16 brainstorming meeting at OSPE headquarters, invited chapter representatives discussed ways an OSPE liaison committee might support the goals and objectives of PEO's chapters.

OSPE CLC Chair Ed Poon, P.Eng., a member of OSPE's board of directors and a past PEO York Chapter chair, said he sees the CLC as an opportunity to promote the benefits of a collaboration between PEO chapters and OSPE to all engineers.

Poon said he believes the CLC might benefit the chapter system by assisting with event sponsorship, advertising and promotion. At the same time, the advocacy organization could benefit by enjoying more direct contact with chapter members, especially in discussing advocacy issues with a wider PEO membership.

To date, 14 PEO chapters from across the province have been approached to participate in the committee. It's expected more chapters might participate in 2009. Plans for the pilot project call for each of the 12 OSPE directors to be assigned as a contact person for up to three PEO chapters.

Matthew Xie, P.Eng., chair of PEO's York Chapter, said he believes the CLC could be a win-win situation for PEO and OSPE.

"PEO's chapter system works very well to connect its members locally," Xie told *Engineering Dimensions*. "OSPE has lots of ideas to help engineers, but they lack the communication channel to reach out to general members and gain feedback. Many PEO chapter executives are hands-on managers who are passionate and creative in conducting the volunteer business to serve the profession. OSPE would enjoy a big share of this available human resource if OSPE and PEO co-operate at the chapter level."

Xie added that while PEO and OSPE have different functions, they also both seek to make positive contributions to engineering and the general public.



Matthew Xie, P.Eng., chair of PEO's York Chapter, discusses possible benefits of an Ontario Society of Professional Engineers' Chapter Liaison Committee September 16 at OSPE headquarters. At left is Matthew Ng, P.Eng., PEO chapter manager.

Volunteers needed now for NATIONAL ENGINEERING WEEK 2009

By Julie Cohen



Engineering volunteers test a bridge to destruction at the K'NEX construction workshop held at the Ontario Science Centre during NEW 2008. Some bridges at the workshop were found to hold 100 times their weight.

NATIONAL ENGINEERING WEEK (NEW) is only a few months away. In its 18th year, the mandate of NEW, in Ontario February 28 to March 8, is to raise awareness of the importance of engineering and technology in daily life and encourage young people to consider careers in engineering and technology.

As part of NEW in Ontario, drop-in K'NEX construction workshops will be held at science centres and children's museums in Kitchener, London, Ottawa, Sudbury and Toronto. About 300 engineering and technology volunteers are needed to make these workshops successful.

Volunteers will help children age six and older translate their imaginations into reality by creating wonderful structures using K'NEX, the popular colour-coded building toy.

To volunteer for one of the drop-in K'NEX construction workshops, please visit www.engineeringweek.on.ca and click on Volunteer Opportunities for an online volunteer form.

Toronto-area engineering volunteers are also needed to give career talks to elementary or middle school classes on weekdays of NEW (March 2 to 6) at Toronto public libraries. Dozens of libraries will be involved, some hoping for French presentations. If you are interested in participating, please contact Julia Melnikova, 416-223-9961, ext. 225; 866-763-1654; or jmelnikova@ospe.on.ca.

It's not too late to start organizing an event for NEW 2009. Ideas and information for activities and events can be found on the NEW Ontario website at www.engineeringweek.on.ca (click on Event Organizer Help, then Planning Advice).



ENGINEERS CENTRAL TO PROPANE SAFETY REVIEW

By Michael Mastromatteo

The Ontario government has appointed two professional engineers—both licensed by PEO—to conduct a review of propane handling, storage and transport.

Michael Birk, PhD, P.Eng., a professor of mechanical and materials engineering at Queen's University, and Susana Katz, P.Eng., the British Columbia government's former chief inspector for gas safety, will examine all aspects of propane safety in Ontario. They are scheduled to report back to the government by late October 2008.

The safety review comes in the wake of the August 10 Sunrise Propane explosion and fire in Toronto, which led to two deaths, caused extensive property damage and forced the evacuation of hundreds of people from their homes in Toronto's Downsview area.

The Birk-Katz review will focus on safety aspects of propane storage and distribution, rather than the causes of the Sunrise Propane explosion, examining propane-related legislation and regulation in Ontario and other Canadian provinces, and fuel-handling regulation in international jurisdictions.

Birk and Katz will work with government, the Technical Standards & Safety Authority, propane industry officials, municipal leaders and other stakeholders.

Birk told *Engineering Dimensions* September 3 that a key part of the review will be a comparison of fuel-handling safety regimes. “We will be looking at other practices to see if ours are lacking in any respects,” he said, including comparing the training of fuel-handling employees, operator obligations, inspection requirements, emergency management plans, and zoning and distance requirements for propane storage sites.

The review is expected to produce recommendations on the legislative framework for improving propane safety in Ontario.

Birk suggests safety reviews of technical issues like propane storage and handling are a natural part of an engineer’s commitment to public safety and protection.

“I can’t see how such a review can be done effectively without engineers,” he said. “There are many complex technical, economic and social issues under consideration. Engineers today are trained to consider all of those. The main safety issues are all highly technical and this requires specialized technical knowledge. I see this as one more example of a multi-disciplinary working group, with engineers playing a critical role.”

Following the review of propane safety, the government may review the safety of other volatile fuels.



ON THE ROAD TO THE P.ENG.

Noreen Calderbank, P.Eng., PEO manager of precicensing programs, outlined the steps to go from engineering graduate to licensed P.Eng. during an August 21 seminar for newly registered engineers-in-training (EITs). Participation at the information seminars at PEO headquarters in Toronto is growing and 24 are planned for 2009.

PROTOCOL TO ASSESS infrastructure vulnerability DEVELOPED

By Michael Mastromatteo

ENGINEERS CANADA and Natural Resources Canada have developed a protocol to enable engineers to assess the engineering vulnerability of infrastructure due to climate change. The protocol is the key outcome in the recently released first report of the Public Infrastructure Engineering Vulnerability Committee (PIEVC).

The committee was established to examine threats to public infrastructure posed by climate change and severe weather. Its first report covers the work completed to date on four areas of infrastructure vulnerability: storm and waste water, water resources, roadways and bridges, and buildings.

An outcome of the first phase of PIEVC's work is development of an engineering vulnerability assessment protocol that provides a procedure for sifting through data for relevant information on specific elements of the climate and components of a given infrastructure.

Project Manager David Lapp, P.Eng., manager of professional practice, Engineers Canada, says the protocol for evaluating infrastructure vulnerability due to climate change is "the most important outcome of the work to date. We believe this is a tool that with a few more refinements we can make available to engineers."

To develop the protocol, PIEVC collected and analyzed seven case studies from different parts of Canada. Lapp says additional case studies will be incorporated into the next phase of the three-year project.

"We're going to do more case studies, because we don't have enough of a sampling yet to be definitive about vulnerability," Lapp says, "although we do have some indicators." Future work, he says, also involves adding further to the protocol so that it will be used consistently by third parties, which will include outreach and training.

The results of the first case studies were posted on the PIEVC website in June. Further case studies of community infrastructure in the four categories will be pursued in 2008, Lapp says.



In the long term, the national assessment of infrastructure vulnerability due to climate change and severe weather will be input to the review of national and local building codes and standards. It is also hoped it will help engineers, project managers and municipal officials determine the best use of budget and other resources in protecting infrastructure from severe weather-related challenges.

Additional information about the infrastructure vulnerability study is available at www.pievc.ca/e/index_.cfm

We have a **WINNER!**



Dave Gray, P.Eng., is the lucky winner of the iPod touch offered in our *Engineering Dimensions* digital edition contest. He plans to share his prize with kids Sean and Alexandra.

Gray was one of approximately 7000 members who signed up for the paperless edition in August and September. To register for yours, go to the Members' Area of www.peo.on.ca and click on Subscriptions.