Ontario Engineers Awards celebrate unsung heroes

By Jennifer Coombes

Since 1947, the largely behind-the-scenes contributions of Ontario's engineers have been honoured with the presentation of Ontario Professional Engineers Awards (OPEA). This year, 10 outstanding candidates were chosen to receive the awards, which, since 2005, have been given jointly by Professional Engineers Ontario and the Ontario Society of Professional Engineers (OSPE). The awards will be presented at a gala on Saturday, November 18 at The Carlu in Toronto. For ticket information, visit the OSPE website at www.ospe.on.ca.

Professional Engineers Gold Medal

The recipient of the Professional Engineers Gold Medal, the premier award of the profession, will be **Thomas Anthony Brzustowski, OC, P.Eng., FCAE, PhD,** for his significant and lasting contribution to engineering research and development, and for his service as a dedicated educator and researcher. The Gold Medal recognizes conscientious commitment to public service, technical excellence and outstanding professional leadership. Brzustowski is endowed research chair in commercialization of innovation in the school of management at the University of Ottawa, and advisor of the Institute of Quantum Computing at the University of Waterloo. A two-term president of the Natural Sciences and Engineering Research Council (NSERC), he made significant progress in the teaching and relevance of engineering education, and introduced programs to promote collaboration between industry and academe. Before his post at NSERC, Brzustowski spent eight years in the provincial public service as deputy minister, first in the Ministry of Colleges and Universities, and later in the Premier's Council. A pioneering professor of the engineering department at the University of Waterloo, Brzustowski chaired the department of mechanical engineering and was CEO and vice president academic for 12 years. Brzustowski is a Fellow of the Canadian Academy of Engineering, an Officer of the Order of Canada, and an Honorary Fellow of the Royal Society of Canada.

Anthony Brzustowski, P.Eng., will be awarded the Professional Engineers Gold Medal at the Ontario Professional Engineers Awards gala in November.

Engineering Medal–Engineering Excellence

John Alexander McCorquodale, PhD, P.Eng., will be the recipient of this year's Engineering Medal for Engineering Excellence for his outstanding contributions to engineering education and the application of his specialty. McCorquodale is the FMI professor for environmental modeling at the University of New Orleans and is known internationally as one of the foremost authorities in environmental hydraulics. He is also a veteran professor, consultant and researcher, having spent three decades with the University of Windsor. His research has advanced the profession's understanding of numerical modeling applied to water and wastewater treatment plants, river modeling, and shore protection. McCorquodale was a key contributor to the success of a multi-disciplined pollution control planning study in the City of Windsor that played a critical part in establishing future pollution control initiatives and spending priorities for the city.

Engineering Medal–Entrepreneurship

The recipient of the Engineering Medal for Entrepreneurship will be **Phillip J. (Rocky) Simmons, P.Eng., PhD.** President and CEO of waste and wastewater companies Eco-Tec Limited and Eco-Tec Inc., Simmons demonstrated leadership and determination in building a startup company, based on graduate-level research, into internationally successful Ontario businesses. Concentrating on all aspects of the business, he transformed it to a level that a number of Eco-Tec's processes have become de facto standards in such industries as stainless steel and aluminum finishing. The company has been the recipient of many awards, including a Canada's 50 Best Managed Companies Award, the Canada Award for Business Excellence, the CME Award for Innovation, and the Falconbridge Award for Innovation. Simmons also serves on the Dean's Advisory Board of the faculty of applied science and engineering at the University of Toronto.

Engineering Medal–Management

The 2006 Engineering Medal for Management will go to **Denis Turcotte, P.Eng., MBA,** of Algoma Steel Inc., for strategies that have revived failing companies in Ontario's north. Algoma was one such company when he joined as president and CEO four years ago. Under creditor protection at the time, Algoma, under Turcotte, rebounded into the flourishing, billion-dollar, debt-free corporation it is today–a risky procedure considering that 7 per cent of Sault Ste. Marie's residents are employed with

Algoma. His other successful projects include restructuring the Spruce Falls paper mill in Kapuskasing to prevent its closure and transforming the mill into a competitive and profitable operation, saving hundreds of jobs. Turcotte will add his Engineering Medal to a collection of awards and honours, including a Canada's Top 40 Under 40 Award and the Lakehead University Alumni Honour Award, which recognized his outstanding business accomplishments.

Engineering Medal–Research and Development

One of two Engineering Medals for Research and Development will be presented to **Kwan Yee Lo, P.Eng., PhD,** director of the University of Western Ontario's Geotechnical Research Centre and professor emeritus, for his contributions to science and geotechnical engineering, and the education of future engineering leaders. Many of the technologies Lo has developed to analyze dam stability have been adopted by geotechnical engineers worldwide, and Lo's work has contributed greatly to measuring stress in rocks to aid the design and construction of underground structures. Lo has mentored 17 PhD students and 27 master's students, and authored and contributed to dozens of reports, papers and books. The K.Y. Lo Medal was established in his honour to recognize outstanding international contributions to the fields of geotechnical and civil engineering.

Masahiro Kawaji, P.Eng., PhD, will also receive an Engineering Medal for Research and Development. A professor in the department of chemical engineering and applied chemistry at the University of Toronto, Kawaji has demonstrated excellence in industry-oriented research, and dedication to the education of future leaders of engineering. Many of his industry-funded research projects have had a significant impact on Canada's economic development and competitiveness. In addition to international recognition for his work on two-phase flow, which has provided a new insight into this complex microscale phenomenon, Kawaji is also a world-renowned academic research leader, having worked with dozens of post-doctoral researchers and visiting academics, and PhD, masters and undergraduate thesis students. He has contributed to several books, more than 170 research and conference papers, and more than 100 non-refereed conference proceedings and technical reports. Kawaji is a recipient of the Jules Stachiewicz Medal of the Canadian Society for Chemical Engineering.

Engineering Medal–Young Engineer

Stephen Jahns, P.Eng., will receive an Engineering Medal, Young Engineer category, for using his growing structural rehabilitation expertise for the benefit of his community. As manager of infrastructure and traffic engineering for the municipality of Chatham-Kent, he aided the development of the region by maintaining a large network of bridges, roads and traffic controls, and serving as an administrator of the municipal budget. As an intermediate structural engineer with Todgham & Case Associates Inc., he was involved in the structural design of the St. Joseph's Hospital for the Chatham-Kent Health Alliance, and a complex restoration and conversion of the former administrative offices of the County of Kent into a courthouse. Jahns' community and volunteer service includes serving as a board member and chair of the Building Committee of the Canadian Mental Health Association, Chatham-Kent Branch, and director of the local Kiwanis Club. He chairs PEO's Chatham-Kent Chapter.

Wael William Melek, P.Eng., PhD, assistant professor in the department of mechanical engineering at the University of Waterloo since 2004, will be the second recipient of an Engineering Medal in the category of Young Engineer. In his career to date, Melek has made impressive strides in research, forged strong ties with industry and garnered considerable funding for his projects. As part of the university faculty, Melek is principal investigator on a two-year mechatronic project; manages five PhD students, three research associates and three professors; and teaches undergraduate and graduate courses. Involved in several federally and provincially funded research projects, such as the Canadian Foundation for Innovation, Materials & Manufacturing Ontario, and CRESTech, he is also faculty advisor for the Society of Manufacturing Engineers at the University of Toronto and a member of the university's Professional Development Centre.

continued on p. 14

continued from p. 13

Professional Engineers Citizenship Award

Mervin J. Dewasha, P.Eng., CEO of Neegan Burnside Engineering and Environmental Ltd., and co-founder and president of the Canadian Aboriginal Science and Engineering Association (CASEA), will receive a Professional Engineers Citizenship Award. A tireless advocate of native access to engineering and science, Dewasha's commitment to these career choices within the aboriginal community led to the founding of the Amik program at the University of Toronto, which encourages enrolment of First Nations students in its science and engineering programs. He also promotes professional development among First Nations youth through career symposia, summer camps and scholarships. For three decades, Dewasha has provided services to aboriginal people through his work with the Canadian government, First Nations' organizations and aboriginal community service. Dewasha is an active member of PEO's Equity and Diversity Committee.

Helen Wojcinski, P.Eng., president of Wojcinski & Associates Limited, and an award-winning and impassioned advocate for improving the status of women in the engineering profession, will also receive a Professional Engineers Citizenship Award. Wojcinski has provided leadership and contributed greatly to engineering, while juggling family demands. Notably, Wojcinski managed the award-winning $250-million western extension of Highway 407–the largest civil engineering contract awarded in Canadian history. She then turned her attention to operating her own change management consulting practice. Wojcinski is dedicated to community service, and has served on the board of directors of the Blue Hills Child and Family Centre, and devoted several years to the Simcoe-York Region District Health Council, where she has been involved in several committees and task forces, including the Acute Care Study Committee.

Building code back in the spotlight

By Michael Mastromatteo

As PEO awaits its judicial review of amendments to the *Ontario Building Code*, the housing ministry has released its new "objective-based" building code, which is expected to come into force on December 31, 2006.

Ontario Regulation 350/06, filed by the housing ministry on June 28, is a transition regulation that enables builders, designers and municipal officials to prepare for the changeover to the new building code.

The 2006 building code's objective-based format is designed to promote innovation and flexibility in building design and construction. Containing more than 700 technical changes from the previous edition, the new code is based on underlying objectives outlining the safety, health, accessibility, fire protection, structural sufficiency and related elements of new building design and construction.

In addressing the Consulting Engineers of Ontario's annual meeting in June, Ontario Housing Minister John Gerretsen said the new code will have a significant impact on the work of engineers. "It's going to make the work of your profession even more important, because under the [objective-based] format, the designers will all have a clear framework for proposing new building materials, new systems and new design alternatives to the acceptable solutions set out in the code," Gerretsen said, "and this will promote innovation in the construction sector while maintaining public safety."

Ontario Housing Minister John Gerretsen said the new code will have a significant impact on the work of engineers. "It's going to make the work of your profession even more important."

The housing ministry says there is "no immediate requirement" for the re-qualification of building practitioners, including building officials. The ministry says it will be consulting with stakeholders to ensure up-to-date knowledge of the building code is maintained. The ministry has also scheduled training sessions about the new code for this fall.

In a June 29 letter to PEO President Pat Quinn, P.Eng., Assistant Deputy Minister Elizabeth McLaren said the housing ministry is aware of the efforts of building design practitioners to demonstrate a high level of building code knowledge, and is eager to work with stakeholders to maintain building code fluency.

In August, meanwhile, PEO learned that an application by the Royal College of Dental Surgeons of Ontario (RCDSO) for permission to intervene (participate) in PEO's judicial review has been rejected by the court. The court ruled that, with respect to RCDSO's application, RCDSO did not prove that it had a sufficient interest in the application for judicial review that would allow it to participate and, further, that the court would not be assisted in deciding the matter by RCDSO's participation.

In its application for judicial review, scheduled for October 26 and 27, PEO is asking Divisional Court to clarify the application of OBC amendments that took effect on January 1, 2006. These amendments purport to require licensed professional engineers to qualify and register under a housing ministry regime to engage in building-related design and review of construction activities. PEO believes the amendments duplicate, contradict and otherwise interfere with PEO's statutory role to license, discipline and regulate its members and that the amendments are not authorized by the *Ontario Building Code Act, 1992*. The interest of the RCDSO in PEO's legal challenge related to its concern about the role of the government in self-regulation.

PEO at forefront of access to professions debate

By Michael Mastromatteo

PEO will continue to monitor the progress of proposed new Ontario legislation that would require the province's occupational regulators to ensure their licensing and registration processes are fair and transparent.

The *Fair Access to Regulated Professions Act*, introduced in the Ontario Legislature in June, aims to help new Canadians practise in their chosen professions sooner. It requires Ontario's 34 regulators of occupations to review their registration and licensing procedures so as to overcome any lengthy delays in assessing foreign credentials.

In introducing the legislation in June, Ontario Immigration Minister Michael Colle said the act would break down barriers for talented, experienced newcomers to Canada. It proposes creation of a fair access practices commissioner who would monitor each regulator's registration practices, report on compliance and, if necessary, impose fines for failure to comply. It also proposes creating an access centre to provide licensing, registration and job market information to internationally trained immigrants.

PEO has expressed support for the proposed legislation's overall objectives. In a June 8 statement, the engineering regulator said the bill provides the public a means of validating a regulator's registration practices, while upholding the government's commitment to the self-governance of professions. It had earlier been proposed that an external body be created to hear appeals of regulators' admissions decisions.

PEO already does much to ensure its licensing and registration requirements and procedures are transparent and accessible, including publishing detailed information and the associated application forms on its website. PEO also permits prospective immigrants to apply for licensing from their country of origin so they can have their qualifications assessed before making their final immigration decision. In addition, PEO is active with immigrant advocacy groups, job counselling centres and other stakeholders to help identify and overcome perceived barriers to the full integration of international engineering graduates into the Ontario work force.

PEO takes issue, however, with the view that credential recognition is at the root of some immigrants' difficulty gaining a foothold in the Ontario economy.

In an August letter to the *Kitchener-Waterloo Record* in response to its reporting of an address in Kitchener by Colle, PEO President Pat Quinn, P.Eng., said the reason some immigrants start off driving cabs is all about jobs, which is

continued on p. 18

Time to start thinking about Engineering Week 2007

Two boys use triangles to prepare their design for the 2006 PEO Thousand Islands-Kumon popsicle stick bridge competition.

By Julie Cohen

The theme for National Engineering Week (NEW) 2007, which happens from February 24 to March 4, is "Engineering is all around us!" And even though the event is months away, it's not too early to start planning events and activities that meet the goals of Engineering Week, which include raising public awareness of the importance of engineering and technology in our daily lives, and encouraging young people to consider careers in engineering and technology. The emphasis is on hands-on activities for children and youth that demonstrate real-life applications of the math and science they study in school.

"Engineering Week activities pay dividends to organizers and volunteers when they see how excited kids get discovering how what they learn in school applies in real life," says Don Cleghorn, P.Eng., chair of the National Engineering Week Ontario Steering Committee (NEWOSC). "National Engineering Week not only provides an opportunity to raise the profile of the engineering and technology professions, but also to contribute to the future of the next generation."

Volunteers interested in organizing an activity for NEW 2007 can find event ideas on the NEW Ontario website at www.engineeringweek.on.ca. NEWOSC offers funding assistance to encourage volunteers throughout Ontario to organize activities and events for the public. After mid-September, information on how to obtain NEWOSC funding assistance will be posted on the website. Deadline for funding applications is Friday, November 9, 2006, so there's no time to lose.

Little progress on QP debate

By Michael Mastromatteo

PEO continues to negotiate with the Ministry of the Environment (MOE) over the exclusion of limited licence holders from the list of persons qualified to conduct environmental site assessments and to certify records of site condition.

The longstanding issue stems from Ontario Regulation 153/04 under the *Brownfields Statute Law Amendment Act, 2001*. Under the regulation, whose provisions dealing with qualified persons (QPs) were set to sunset on October 1, 2006, professional engineers were among the list of qualified persons, while PEO limited licence holders were explicitly excluded. The ministry is in the process of establishing its own certification regime for QPs.

On July 18, the environment ministry posted for comment a proposed amendment to section 5 of Regulation 153 that would extend the sunsetting of the regulation from October 1, 2006 to April 1, 2008, during which time the existing QP definition would remain in effect.

In an August 16 letter to Chris Lompart, manager of MOE's land and water policy branch, PEO CEO/Registrar Kim Allen, P.Eng., said the "proposed continuation of a flawed regulation implicitly sends a message that the MOE intends to pursue encroachments on existing regulatory regimes established by the legislature to govern the professions."

He also took issue with the regulation's expanding list of non-licensed practitioners who now qualify as QPs, while limited licence holders remain excluded.

Reason for exclusion

"PEO continues to question the ministry's rationale for excluding its limited licence holders using its definitions of what is a QP, considering that MOE has allowed non-regulated practitioners to perform certain acts," Allen wrote. "Since all licensed practitioners, including limited licence holders, are regulated and governed by an effective public statute, there is no reason for the exclusion. It continues to be our position that licensed practitioners acting within a disciplinary and enforcement regime provide a greater level of public accountability than those persons who hold only reserved titles."

In an August 4 letter to Environment Minister Laurel Broten, PEO President Pat Quinn, P.Eng., also raised the issue of the limited licence holder exclusion.

"We are surprised that the ministry posted an Environmental Bill of Rights notice to extend the sunset provision for qualified persons, but did not take this opportunity to resolve the limited licence holder concern when the legislation is set to expire," Quinn said.

Environment ministry officials have remained open to dialogue with PEO regarding the QP issue, but do not seem to have appreciated that under the *Professional Engineers Act*, limited licence holders have the same regulatory obligations as professional engineers, although their area of practice is restricted by the stipulations of the limited licence.

At a June meeting with MOE, PEO was advised to work closely with ministry staff to pursue additional changes to the QP qualifications. At that time, PEO reminded MOE the exclusion of limited licence holders from the list of QPs is still an issue the regulator would like to have addressed.

In communications with PEO staff, MOE has suggested liability issues and other factors associated with filing records of site condition justify more stringent requirements of qualified persons than what the PEO limited licence entails.

continued from p. 16

the government's responsibility to fix if it is a problem. "It is political but simplistic to insinuate that regulatory bodies are all being unfair in their processes (the evidence is much to the contrary), and to imply that fixing what doesn't need to be fixed will solve an immigrant's job problems," he said.

"At this time, the jobs are in the hot markets of Alberta and British Columbia, but that doesn't stop many immigrants from coming to Ontario, a decision they are entitled to make but which has implications. Under the circumstances, immigrants should be told the reality when they complain that they cannot easily get jobs in their chosen field. Many Ontarians find it unreasonable that the 5000 graduates of the engineering schools at Ontario universities have to compete with the 10,000 self-declared engineers annually attracted to Ontario."

Over the last six years, PEO has licensed applicants from more than 1000 institutions around the world. In fact, in 2005 PEO licensed more international engineering graduates than graduates of Canadian accredited engineering programs.

Approximately one-third of Ontario's 68,000 licensed engineers were educated outside Canada.

New foundation aims to advance engineering interests

By Michael Mastromatteo

A number of Canadian engineering organizations have created a new foundation aimed at advancing the interests and reputation of the engineering profession across the country.

The Canadian Engineering Leadership Foundation (CELF), established by way of a memorandum of understanding signed during the Canadian Council of Professional Engineers' (CCPE) annual meeting June 3 in Whitehorse, Yukon, is a multi-party commitment to work together to set long-term direction for the engineering profession.

CELF comprises the presidents, presidents-elect and chief executives of six leading engineering organizations in Canada. In addition to CCPE, the foundation includes the Association of Consulting Engineers of Canada (ACEC), the Canadian Academy of Engineering (CAE), the Engineering Institute of Canada (EIC), the National Council of Deans of Engineering and Applied Science (NCDEAS) and the Canadian Federation of Engineering Students (CFES).

Signing the MOU were Marie Lemay, P.Eng. (CEO, CCPE), Colin Smith, P.Eng. (past-president, CCPE), Bob Lorimer, P.Eng. (ACEC), Linda Van Gastel, P.Eng. (CAE), Maja Veljkovic, P.Eng. (EIC), Doug Ruth, P.Eng. (NCDEAS), and Shawn Mondoux, (president, CFES).

CCPE's Deborah O'Malley describes the leadership foundation as a means of fostering improved communication and understanding among member organizations' mandates and activities. CELF is also aimed at harmonizing policies and making better use of member resources in undertaking joint initiatives in the interest of engineering in Canada.

McMartin assumes CCPE leadership

By Michael Mastromatteo

Past PEO President Ken McMartin, P.Eng., has been elected president of the Canadian Council of Professional Engineers (CCPE) for 2006-2007.

Manager, civil and environmental engineering laboratories, Carleton University, Ottawa, McMartin was PEO President in 2003-2004. He has been active with PEO governance, chapters and task force work since 1993, and became a member of PEO Council in 1997.

McMartin plans to focus on implementing CCPE's strategic plan, and also hopes to strengthen communications among CCPE, its constituent members, and others in the wider engineering community. As well, he expects to raise the issue of engineer mobility, both within Canada and on the international front.

He will also oversee progress on such ongoing CCPE initiatives as its government relations program, the From Consideration to Integration program for international engineering graduates, and the Public Infrastructure Engineering Vulnerability Committee (PIEVC).

McMartin says his involvement with PEO was helpful in preparing for the CCPE role, providing him "a good understanding of the dynamics of leading a large, diverse board," while enabling him "to grow as a person, to understand the needs of others, and to compromise to allow a successful conclusion. As well, it gave me the insight to listen more than act. No matter in which direction you wish to go, if the majority is going in the opposite one, you have nothing to do but follow."

First licensed by PEO in 1980, McMartin was named a Companion of PEO's Order of Honour in April.

McMartin began as a PEO director on the CCPE board in 2002, heading up four of its subcommittees.

CCPE is the federation of the 12 provincial and territorial associations and ordre that license and regulate the practice of the more than 160,000 professional engineers in Canada.

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Alberta partnership plan still in the works

By Michael Mastromatteo

Alberta's engineering regulator and the province's technologists' group are continuing negotiations aimed at a possible partnership between the two organizations.

The Association of Engineers, Geologists and Geophysicists of Alberta (APEGGA) and the recently renamed Association of Science and Engineering Technology Professionals of Alberta are expected to release more details of government-mediated negotiations within the next several weeks.

The main issue is an APEGGA offer to partner with the technologists' association (formerly known as ASET) in regulating overlapping aspects of the two professions.

Although the Alberta government rejected plans to merge APEGGA and the technologists in 2004, the two organizations have continued discussions on what has been termed the "one act/two associations" model.

Neil Windsor, P.Eng., executive director and registrar of APEGGA, told *Engineering Dimensions* in July that the two groups are in "mediated discussions," but that a joint statement was forthcoming.

However Jay Fisher, an official with the Alberta technologists' group, indicated that a merger between the two groups is not part of the discussion. "For the moment there is nothing more to say other than the two organizations are meeting in government-mediated talks," Fisher said. "The most recent meeting was in late June and the next one was scheduled for August 23. The concept of one act and two organizations is being discussed, along with numerous other details. There are no discussions taking place regarding a merger of the two organizations."

APEGGA favours a partnership with technologists instead of an ASET proposal that the Alberta government draft new legislation making ASET the regulator of technologists with the right to practise independently (see *Engineering Dimensions*, July/August 2006, p. 23).

Rather than creating new legislation for technologists, APEGGA proposed that the provincial government draft an amendment to the current engineering act that would give technologists a right to title and a role regulating technologists practising under the supervision of engineers.

Although the Alberta government rejected plans to merge APEGGA and the technologists in 2004, the two organizations have continued discussions on what has been termed the "one act/two associations" model.

In a report delivered at PEO's annual general meeting in late April, APPEGA President David Chalcroft, P.Eng., said increased cooperation between Alberta's engineers and technologists is necessary to advance the interests of both professions.

"Under the umbrella of the *Engineering, Geological and Geophysical Professions Act*, [the technologists' association] would take on regulatory responsibilities for categories of technologists who practise within teams," Chalcroft said. "APEGGA and ASET would jointly regulate those technologists who practise independently–that is, technologists who accept full responsibility and sign off on their work with no higher technical review. A key to making this vision function smoothly will be the establishment of joint boards so that knowledgeable peer engineers and technologists can work out technical and practice issues together."

Expanded Public Information Model underway

By Michael Mastromatteo

PEO continues to gather information about licence holders in preparation for the rollout of its Expanded Public Information Model (EPIM) (see *Engineering Dimensions*, July/August 2006, p. 24).

Scheduled for launch in October 2007, the EPIM responds to public interest needs for making practitioner information available from PEO's website or on request. The gathering of practitioner information and its sharing with the public will be guided by a privacy protection policy approved by Council in September 2004. The privacy policy aims to safeguard the personal information held by PEO and includes the requirement to outline clearly the purposes for which any information is collected and used.

To assist in the EPIM process, members are encouraged to visit the members' area of the PEO website to review the personal information on file for accuracy and completeness. They can then update their profiles using the website's online address change function. As well, a number of the current information forms are being revised to enable members to add new details to their profiles.

To request that information not be published to the website or made public in any way, members can download, complete and submit a Request to Withhold Information from the Public form from the PEO website.

For additional information on the EPIM, contact PEO's Privacy Officer, privacy@peo.on.ca.

PEO to implement voluntary, online PD reporting

By Paula Habas

In approving PEO's 2005-2009 Strategic Plan, Council approved development and implementation of a voluntary annual reporting mechanism to enable PEO licence holders to record their continuing professional development (PD).

The VAR (voluntary annual reporting) project began in June 2005, with formation of a steering committee comprising Kim Allen, P.Eng., George Comrie, P.Eng., and Eric Brown, P.Eng., to oversee the project and approve the implementation strategy. A project team of PEO staff is responsible for designing and implementing the online reporting mechanism.

The project plans call for the rollout in early 2007 of the voluntary, member-maintained, online reporting mechanism that will allow engineers to record their professional development activities and other competencies. Participants would then regularly update their personal profile of engineering services provided and continuing education, using a secure web form to enter, edit and delete information.

Professional development activities that licensees might report will fall into five general categories:

1. formal methods (structured courses or programs);
2. informal methods (seminars, conferences, technical field trips, trade shows);
3. participation (self-directed study, mentoring, committee meetings);
4. presentations (technical or professional presentations prepared and presented outside regular job function); and
5. contributions to knowledge (presentations, written papers, developed codes and standards).

Engineers will be able to record the date(s) the activity occurred, a description/title of the activity, the organizer/provider of the activity (if applicable), and categorize the activity by delivery method.

Voluntary annual reporting will be available to all licence holders, except "non-practising" members, such as retirees or those on medical or parental leaves.

Across Canada, engineering associations have, since the mid-1990s, developed and implemented either voluntary or mandatory programs to report their licensees' professional development

It is hoped that implementation of a PEO Voluntary Annual Reporting mechanism will provide consistency across the country and facilitate practice mobility.

Professional development programs for different engineering associations across Canada

	APEGBC	APEGGA	NAPEGG	APEGNB	APEGM	APEGS	APENS	APEPEI	APEYT	PEGNL	OIQ
Mandatory		✓		✓		✓		✓		✓	
Voluntary	✓		✓		✓		✓		✓		✓

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Manitoba engineers resigned to new building design regime

By Michael Mastromatteo

Manitoba's engineering regulator is relieved to see the end of a long-standing dispute with the province's architects association over rights to practise in certain areas of building design, construction and management.

The Architects and Engineers Scope of Practice Dispute Settlement Act was passed by the Manitoba legislature in late November 2005. The act includes amendments to both the province's engineers and architects statutes, which now limit engineers to acting as prime consultants on building projects of no more than 600 square metres.

> "We have spent hundreds of hours and thousands of dollars on this new legislation, [the enabling] of engineers to practise under the new legislation, and legal defence of our profession in court," Koropatnick said. "The matter is resolved, but we've all become tired of it."

The dispute settlement act responded to an earlier court ruling that the planning and construction of all new buildings beyond a certain size–and modifications to existing buildings–must be inspected by an architect, since Manitoba's *Engineering and Geoscientific Professions Act* contained an exemption allowing architects to perform certain building services under that act, but no such exemption existed for engineers to perform similar services under the architects' legislation.

The Association of Professional Engineers and Geoscientists of Manitoba (APEGM), supported by some of the province's developers, consequently mounted an intensive lobbying campaign in a bid to have the court ruling reserved. APEGM argued the ruling would lead to ongoing disruptions to the current construction boom in the province.

With passage of the November legislation, however, APEGM began working jointly with the province's architects association to help implement the amendments to each of their acts. Key to the joint work was establishing the criteria to enable some of the province's engineers to continue practising in the areas now defined exclusively as architecture.

Grant Koropatnick, P.Eng., executive director and registrar, APEGM, told *Engineering Dimensions* that despite some disappointment with the court ruling, engineers in Manitoba are prepared to move on.

"We have spent hundreds of hours and thousands of dollars on this new legislation, [the enabling] of engineers to practise under the new legislation, and legal defence of our profession in court," Koropatnick said. "The matter is resolved, but we've all become tired of it."

Koropatnick said APEGM had anticipated up to 12 applications from engineers for the grandparenting option, but as of the June 29 deadline only five APEGM members had registered with the province for it.

"It would be easy for membership to consider this a defeat, but the whole crux of the issue is disguised in numbers," he said. "I want to say to our members, don't be fooled by the numbers. This is not a defeat. I believe that what took place with respect to the [grandparenting] was a normal process. The numbers were quite normal for our industry."

In her report at PEO's annual meeting in April, APEGM president-elect Robyn Taylor, P.Eng., said the settlement has allowed engineers and architects to form business relationships in the building design and construction field so that engineering firms will continue to find work in building construction, as long as they engage a professional architect to sign and stamp design plans for buildings over 600 square metres in size.

Digvir Jayas, P.Eng., past president, APEGM, suggested the dispute settlement with the province's architects might have a silver lining. "Although it was a long process and certainly the end result was not perfect, the resolution reached is good for the public of Manitoba," Jayas said in an interview. "Both APEGM and the Manitoba Architects Association are to protect and promote the public interest, thus I look into this matter from that perspective. Although it affects a small number of APEGM members, it has the potential to benefit both the engineer and architect professions. The revisions in *The Engineering and Geoscientific Professions Act* allow for engineering firms to hire architects. This provision will benefit several engineering firms because they can grow to provide both engineering and architectural services to the public, or conduct complete designs in-house. It will benefit the architectural profession by creating more jobs for architects."

PEO resolved similar scope of practice issues in 1980 through an agreement with the Ontario Association of Architects, which provisions were adopted in exception clauses in a new *Architects Act* in 1983 and a new *Professional Engineers Act* in 1984.

Ontario's interior designers seek self-regulation

By Michael Mastromatteo

A private member bill to give self-regulation to Ontario's registered interior designers through the Association of Registered Interior Designers of Ontario (ARIDO) was recently introduced in the Ontario legislature.

ARIDO is a voluntary professional association serving the interests of both the public and the interior design industry. It has 1200 registered and 800 intern members.

Introduced by Liberal MPP Tim Peterson (Mississauga South), the *Interior Designers Act, 2006* (Bill 121) would, if passed, establish ARIDO as the self-governing body responsible for regulating the profession of interior design in Ontario. ARIDO has asked PEO and other stakeholders in the building design industry to support Bill 121.

The bill would give ARIDO authority to set standards of practice and entry to practice requirements for the practice of interior design, and would define the exclusive scope of practice for interior designers. If passed, the bill would also restrict use of the title interior designer to members of the profession who meet the necessary qualifications.

To date, Nova Scotia is the only Canadian province to grant self-regulation to interior designers.

The interior designer bill has the support of the three major parties in the legislature, and could become law in Ontario by the end of 2006.

ARIDO president Lynn McGregor said PEO support for the bill is especially important given that engineers work closely with architects and interior designers in Ontario's building industry.

"Our ultimate objective with this bill is to achieve greater protection for the consumer," McGregor said. "If the profession were to remain unregulated, there would be no restrictions on who may practise interior design, leaving consumers and business with no reliable way of knowing if practitioners have appropriate qualification and training to practise safe interior design."

McGregor said ARIDO officials recently met with PEO CEO/Registrar Kim Allen, P.Eng., and Director, Governance Mark Baruzzi, LLB, to discuss how the proposed act might impact on engineering self-regulation.

"ARIDO is fully aware of the importance of team work in Ontario's building design and construction industry, and this is one of the key reasons we've been looking to PEO and other key stakeholders," McGregor added. "We see this bill as an important step in creating a stronger, safer building design community in Ontario."

For his part, Allen says the engineering regulator's interest in the ARIDO bill is limited to any possible conflict or overlap between the *Professional Engineers Act* and a new act governing interior designers.

> ***"Our ultimate objective with this bill is to achieve greater protection for the consumer."***
>
> Lynn McGregor, ARIDO president

"It's more important that PEO keep to the sidelines as the government decides whether to allow self-regulation for interior designers," Allen said. "Our interest remains on how any new act would impact on PEO's ability to regulate engineers."

PEO was lukewarm to a similar effort by ARIDO in 2003. At the time, then PEO President Richard Braddock, P.Eng., wrote to the Ontario attorney general questioning the need to create another self-regulating profession to cover interior design practice.

The 2006 bill would regulate the practice of interior design, excepting most residential buildings, such as residential buildings under 600 square metres. Architects and engineers could continue to practise interior design subject to their own regulatory statutes.

ARIDO says interior design includes development of all public interior spaces, such as corporate offices, restaurants, retail stores and shopping malls, health and long-term care facilities, academic institutions, airports, detention centres and public facilities. Interior designers incorporate specialized knowledge of fire codes, building codes, material flammability and toxicity issues, and barrier-free design matters into each project to ensure the protection of the public, it says.

CAs welcome competition in public accounting field

By Michael Mastromatteo

The regulator of Ontario's chartered accountants says it welcomes the province's adoption of new public accounting standards, which allow certified management accountants (CMAs) and certified general accountants (CGAs) to be licensed to do public accounting and compete with chartered accountants (CAs) in the public accounting area.

On June 20, Ontario Attorney General Michael Bryant officially adopted the qualification and regulation standards created by the Public Accountants Council, a body established anew in 2004 to oversee regulation of public accounting following legislation to open the field to qualified CMAs and CGAs. With agreement among all accounting practitioners as to proper standards, CMAs and CGAs can now enter the audit and assurance market alongside CAs. Previously, the field of public accounting was largely restricted to CAs.

While the adoption of the new standards invites greater competition in public accounting, the Institute of Chartered Accountants of Ontario (ICAO) believes it is an improvement on previous efforts to reform public accounting's regulatory framework.

"These high new standards were created by an arm's-length body consisting of a majority of independent, eminent public representatives and members of all three accounting bodies," said Brian Hunt, ICAO president and chief executive officer.

With agreement among all accounting practitioners as to proper standards, CMAs and CGAs can now enter the audit and assurance market alongside CAs. Previously, the field of public accounting was largely restricted to CAs.

Hunt said the new standards, which were long sought after by the ICAO, are proof that protecting the public interest in the public accounting field outweighs the commercial interests of any one accounting organization.

"By accepting these independent recommendations on public accounting standards for Ontario, the government has achieved a fair balance by opening up public accounting to other designations, while protecting the interests of investors and the business community through the continuation of high professional standards," he said.

The Certified Management Accountants of Ontario also applauds implementation of the new standards, describing them as an effort to broaden access to public accounting services while protecting businesses, investors and public confidence in the profession.

Public accounting is the business of expressing independent assurance on financial statements and other financial information of enterprises of all sizes, to ensure the information truly reflects the enterprises' financial condition. Large and small investors, financial institutions and other third parties use that assurance to help them make informed investment and lending decisions.

The ICAO says that before development of the new public accounting standards, there was no way to fully measure the training and certification of all public accounting practitioners. The ICAO argued throughout that efforts to broaden access to public accounting services should be accompanied by efforts to apply the same rigorous standards as those expected of CAs.

The government of Ontario resolved the issue of who could be licensed for public accounting by passing the *Public Accounting Act, 2004*, which was supported by all parties in the legislature. All three Ontario accounting bodies also supported the act, on the basis that it fully satisfied the criteria needed to ensure the public interest remained protected. The act:

- created a new Public Accountants Council (PAC), comprising a majority of nine independent and highly qualified public representatives, four CAs, two CMAs and two CGAs;
- mandated the PAC to create new public accounting qualification and regulatory standards that members of all accounting bodies would have to meet as a condition of licensing; and
- specified the new standards would have to be no less rigorous than the internationally recognized standards under the (previous) *Public Accountancy Act* as they existed on June 9, 2004–in short, the standards CAs were required to meet at the time.

New bill shakes up Ontario teachers' regulator

By Michael Mastromatteo

The Ontario government has made major changes to the governance structure of the Ontario College of Teachers (OCT).

The *Education Statute Law Amendment Act (Student Performance), 2006*, a series of changes to the *Ontario College of Teachers Act, 1996* and other education-related statutes, came into effect June 1. Although the act now gives classroom teachers an overall majority on the OCT's governing council, it also creates a Public Interest Committee to oversee the regulation of teachers. Classroom teachers will now hold 19 of the 37 seats on the OCT council.

While teachers' organizations say they welcome the expanded council setup, some have questioned the need for the new committee, calling it an unprecedented watchdog body that could interfere with true self-regulation.

The Public Interest Committee will be composed of up to five non-OCT members who will advise the college on matters relating to the regulation of teachers in the public interest. Other than a confirmation the education ministry will name the chair of the committee, there has been little indication as to its authority, mandate and accountability.

The new legislation has also drawn criticism from former OCT officials, who suggest the changes give undue control of teacher regulation to unionized classroom teachers.

The Ontario education ministry, however, believes the governance changes will "depoliticize" the college and encourage greater teacher input into OCT elections. In the 2003 OCT election, only 4 per cent of the college's 200,000 members cast a ballot. There were also concerns the college had lost relevance to membership because of the adversarial views of elected versus appointed governing council members.

Speaking in defence of the legislation in the Ontario legislature, former Education Minister Gerard Kennedy said it restores the OCT to its original purpose. "We think the public interest means that it should be classroom teachers who are being regulated by the college, who are the profession that sits in judgment of what should be done in the public interest," Kennedy said.

The OCT was established in 1997 to license and regulate teachers in the public interest. Teachers working in publicly funded schools in Ontario must be licensed to teach in the province and be members of the college.

The college establishes standards of practice and conduct for Ontario teachers, accredits teacher education programs, issues, suspends or revokes teaching certificates, and provides ongoing professional development for members.

The OCT has been busy over the summer preparing for its first council elections under the new legislation, now scheduled from September 5 to October 24, 2006.

While teachers' organizations say they welcome the expanded council setup, some have questioned the need for the new committee, calling it an unprecedented watchdog body that could interfere with true self-regulation.

Engineering-public policy link focus of new program

By Michael Mastromatteo

A new master's degree program at McMaster University in Hamilton could help create a new generation of engineers savvy in both technological applications and public policy development.

McMaster's Dofasco Centre for Engineering and Public Policy is described as a facility aimed at preparing engineers from the public and private sectors to interact more effectively with public policymakers. Although it will focus on public policy as it applies to the environment and sustainability issues, there is an expectation the program could help forge a stronger link between engineering and the drafting of more effective policy in the public interest.

The master's degree in engineering and public policy (MEPP) is regarded as a further development of McMaster University's popular Engineering and Society program. Based at the university's school of engineering practice, the program includes courses emphasizing more in-depth knowledge of engineering and policy applications. It also features workshops on engineering and public policy and the writing of a research paper on the "interface" of science, engineering and public policy.

Andrew Hrymak, P.Eng., McMaster's director of engineering practice, told *Engineering Dimensions* the program is the first in Canada to directly link engineering education and policy making.

"While there are many established graduate public policy programs available in Canada, the Master of Engineering and Public Policy program is unique in that it builds on the student's engineering and science experience by adding interdisciplinary courses, practice through problems facing industry and government, and leadership skills development," Hrymak said.

Faculty for the new program is drawn from civil and other engineering disciplines, as well as from McMaster's economics and political science departments. The program also features mentors, guest speakers and workshop leaders from business and industry.

The Canadian Engineering Accreditation Board (CEAB) recently highlighted the environment, energy, and transportation as areas where the engineering profession can play a key role in suggesting and implementing technological solutions. As such, Hrymak said, the engineering-public policy program should be especially timely in helping train future engineers to take stock of all issues and stakeholders in recommending the best use of technology.

"Communication is not only among the technology providers, public policymakers and political leaders, but also with the public in making sure that all the stakeholders have unbiased information to allow them to make the best choice, both for the short- and long-term benefit of society," Hrymak said.

PEO is especially interested in the relationship between engineering and public policymaking as it continues its efforts to inform government leaders and senior advisors of the importance of professional self-regulation in the public interest. Recently, PEO presented a paper to the Ontario energy ministry offering advice as to a method of evaluating options for meeting the province's energy needs.

Both Hrymak and Centre for Engineering and Public Policy Director Gail Krantzberg agree that educating engineers to better understand how the practice interacts with policymaking could ultimately benefit both the profession and the public.

"As our graduates get out there and into the workforce, people will start to understand that engineers can be integral to the policy arena, if they are trained with additional skills beyond their traditional skills," Krantzberg told *Engineering Dimensions*. "But policy advice in the absence of solid engineering knowledge can be weak, so I should think that there would be a spillover effect [with the MEPP]. The policymakers would start to recognize and value the presence of engineers and seek out their advice if the engineers can speak to them in a language they can understand."

Hrymak suggests the engineering-public policy program could help to offset the perception that engineers take too narrow a focus in advocating technological applications. "Engineers are geared to problem solving, while outside the profession we are sometimes viewed as not looking at all the issues related to proposing and implementing a technological solution," Hrymak said. "There are always choices and trade-offs that need to be made, not only at the decision levels of government or senior management within companies, but also in public acceptance. Communication is key; understanding stakeholder perspectives is vital and part of the political decision process or the industrial management selection among alternatives, using sustainable industry development criteria. We want MEPP graduates to be leaders in these types of initiatives."

MEPP bestowed seven engineering-public policy master's degrees in 2006 and expects that enrolment will at least double for the fall term.

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Gail Krantzberg, director of the Centre for Engineering and Public Policy

WEAC forum focuses on career options

By Michael Mastromatteo

An engineering licence remains important to today's students and engineers-in-training (EITs) despite the lure of other career choices potentially afforded to those combining an engineering degree with additional education and training.

Participants at the May 25 Women in Engineering Advisory Committee (WEAC) forum, sponsored by the Ontario Society of Professional Engineers (OSPE), were in general agreement that a P.Eng. continues to provide sufficient opportunity for a rewarding career in both engineering and non-engineering roles. There is some concern, however, that discrimination is a factor leading some female engineers and EITs to leave the profession in pursuit of other career options.

Aimed at exploring career options for female engineers, the forum featured three speakers representing diverse work experiences: Catherine Karakatsanis, P.Eng., senior vice president and principal, Morrison Hershfield Engineering; Basma Shalaby, P.Eng., chief engineer, Atomic Energy of Canada Ltd. (AECL); and Karen Webb, P.Eng., vice president, operations, John Hancock Financial Services. WEAC Chair Lisa Anderson, P.Eng., was master of ceremonies for the event.

OSPE, which assumed administration of WEAC from PEO in 2004, offers career-related workshops as a member service for engineers, while PEO remains interested in increasing awareness of the value of the professional licence to recent graduates and EITs and promoting human rights in professional practice.

Each of the presenters at the WEAC forum outlined the circumstances leading them to their current roles. Although each acknowledged that women are clearly in the minority in engineering schools and in the workplace, they suggested the situation is improving.

Karakatsansis, for example, said career success for women engineers can depend on the environment and on opportunities provided by the employer.

Panelists Basma Shalaby, P.Eng. (left), Karen Webb, P.Eng. (centre), and Catherine Karakatsanis, P.Eng., discuss career options for engineers at the WEAC forum.

"There are a number of opportunities available to women engineers at Morrison Hershfield," she said. "In my case, I've been able to move from a pure engineering role to a position in engineering management."

Karakatsanis said more women in engineering is "good for the profession," not only as a reflection of diversity, but also as a way to bring additional qualities and temperaments to the pool of practitioners.

continued on p. 28

continued from p. 27

Webb said that despite her decision to obtain an MBA and pursue non-engineering work, she values her P.Eng. title and has no hesitation in remaining fully licensed.

"There is no doubt that the combination of my engineering licence with the MBA opened up a lot of options for me, but I find I'm still using my engineering skills every day," Webb told forum participants.

This spring's forum attracted 57 EITs and recent graduates, 21 students and 15 engineers. Participant Aye Nyein San, who is pursuing work as an automation engineer and eventual licensure, discounted suggestions that women are lost to the engineering profession due to discrimination or the problems associated with juggling professional and family responsibilities.

"I think it is a personal preference, combined with an opportunity for interesting work, that determines whether one decides to stay [in engineering] or go, and [it is] something that is not specific just to females," San said.

She also suggested the situation for women engineers continues to improve: "I don't think that women engineers are disadvantaged. In fact, I think that qualified female engineers have an easier time getting hired at companies that have equality recruiting requirements. This is not to say that they will get promoted easily."

PEO Councillor Márta Ecsedi, P.Eng., former chair of WEAC and current chair of PEO's Equity and Diversity Committee (EDC), told *Engineering Dimensions* a key message from the WEAC spring forum was the importance of engineering students becoming licensed early in their careers. "Recent graduates should be encouraged to apply for their engineering licence as early as possible, or there is a good chance they will never be licensed," Ecsedi said. "And I think the forum highlighted the fact that while not all career choices and work experience require the engineering licence, there is still great benefit in applying for and maintaining [it]."

Ecsedi agrees the overall situation for female engineers is improving, but there remain pockets of resistance, resentment and subtle discrimination. She says efforts to promote equality for women in engineering have already led to efforts to encourage participation from aboriginals and other under-represented groups.

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>
> **Aye Nyein San**