

Bill 124 deadlock: PEO introduces Building Design Specialist and BDS official marks

By JENNIFER COOMBES

The January 1 implementation date for new qualification and registration requirements for designers, including professional engineers, under the *Ontario Building Code* (OBC) has now come and gone. As it stands, professional engineers who haven't qualified under the Ministry of Municipal Affairs and Housing's (MMAH) regime and haven't acquired a Building Code Identification Number (BCIN) may no longer legally engage in designs related to building permits.

Despite extensive negotiations over many months with the MMAH and the attorney general's office, PEO was not able to secure an exemption of professional engineers from the ministry's requirement, nor find any common ground on which to move forward, by the January 1 deadline.

In early fall, PEO had retained the services of Clayton Ruby, LLB, and was prepared to mount a legal challenge against the government on the basis that Bill 124 restricts freedom of expression. However, following an October 14 meeting of PEO President-elect Pat Quinn, P.Eng., Past President George Comrie, P.Eng., and Deputy Registrar Johnny Zuccon, P.Eng., with staff from the ministries of the attorney general and the MMAH, there was hope that a memorandum of understanding (MOU) could be reached, based on a set of principles that were agreed upon at that meeting. However, a series of setbacks and misunderstandings over weeks of further negotiations derailed efforts to forge a common understanding between the parties.

A December 14 letter to PEO President Bob Goodings, P.Eng., from the MMAH made it clear that as of that date no agreement existed on the issues in question and that "professional engineers will continue to be subject to" Bill 124.

Facing the inevitable, President Goodings informed the MMAH on December 15 that PEO was withdrawing from the

pursuit of the MOU to exempt professional engineers from the new OBC requirements ahead of the January 1 implementation date.

Instead, he informed MMAH staff, PEO will develop and write amendments to Regulation 941/90 to support its own Building Design Specialist (BDS) designation, as a flexible alternative to the MMAH registration and qualification system. The aim is that once the BDS is established, PEO will work with the Attorney General to have professional engineers and temporary licence holders exempted from the MMAH registration and qualification system.

PEO will develop the designation with input from a working group of its Building Code (formerly BRRAG or Bill 124) Task Force. At present, it is planned that the

have qualified and registered under the MMAH system to differentiate themselves from others holding the MMAH qualification. (The Official Marks Licensing Agreement Form for BDS and Building Design Specialist may be downloaded from www.peo.on.ca/BDS/BDS2.htm.)

PEO is also creating a directory of all professional engineers and temporary licence holders who license the marks.

From the beginning, PEO strongly opposed the MMAH qualification and registration regime, which it believes challenges the principle of self-regulation by imposing additional requirements on licensed designers who are already regulated through the *Professional Engineers Act* (PEA). And throughout the negotiation process for an exemption for professional engineers from the MMAH requirements, PEO advised

PEO will develop and write amendments to Regulation 941/90 to support its own Building Design Specialist (BDS) designation, as a flexible alternative to the MMAH registration and qualification system.

qualifying assessment of licence holders for the new designation would include an interview process modeled after the Experience Requirements Committee's process for initial licensure, which would likely be carried out by a new Building Code Designation Examiners Committee. This committee's members would have significant experience in the building design field and likely have met the MMAH qualification and registration requirements. Applicants for the designation will also be required to provide proof of insurance in accordance with the new limits introduced by the MMAH.

In the meantime, PEO has adopted the "official marks" Building Design Specialist and BDS under section 9 of the *Federal Trademarks Act* as a way for P.Engs and PEO temporary licence holders who

licence holders to comply with the requirements nonetheless, in case an agreement with the government was not possible.

Should an exemption from the new OBC designer qualification and registration requirements not ultimately be possible, even when PEO has a full BDS designation process in place in Reg. 941/90, PEO intends to use its full legal and political resources to oppose the MMAH infringement on PEO's authority under the PEA to regulate professional engineering practice.

Through media releases and ongoing communication, PEO is also notifying the public that anyone doing design work covered by the PEA must be licensed by PEO, regardless of whether they have qualified and registered under the MMAH regime.

OPEA honours engineering's best of the best

By JENNIFER COOMBES

November 19 was a night to remember at the Hilton Suites Toronto in Markham. PEO and the Ontario Society of Professional Engineers (OSPE) honoured 11 outstanding engineers who have made a difference to the profession of engineering, to industry and to society with Ontario Professional Engineers Awards (OPEA). "Engineers are sometimes overlooked and unappreciated, but they contribute substantially to our lives and society," said Chris Cragg, P.Eng., president and chair of OSPE. "Wherever you look that affects peoples' lives, you'll find engineers making the world a better place."

Congratulations once again to the OPEA recipients:

Gold Medal

Frank J. Ewasyshyn, BAsC, MASc, MBA, P.Eng., executive vice president—manufacturing, DaimlerChrysler Corporation

Engineering Medal

Engineering Excellence

John (Jack) Nicholas de la Vergne, P.Eng., senior consultant, McIntosh Engineering Ltd.

Gordon R. Slemon, PhD, P.Eng., professor emeritus, electrical and computer engineering, University of Toronto

Bert Wasmund, PhD, P.Eng., executive director, Hatch Ltd.

Engineering Medal

Entrepreneurship

Anthony P. (Tony) Franceschini, P.Eng., president and CEO, Stantec Inc., Canada

Engineering Medal

Management

Tom Closson, MBA, BAsC, P.Eng., president and CEO, University Health Network (retired)



Recipients of Ontario Professional Engineers Awards are, left to right, Kevin Lockey, P.Eng. (Citizenship Award), Jack de la Vergne, P.Eng. (Engineering Medal—Engineering Excellence), Wes Libbey, P.Eng. (Citizenship Award), Gordon Slemon, P.Eng. (Engineering Medal—Engineering Excellence), Tom Closson, P.Eng. (Engineering Medal—Management), Tony Franceschini, P.Eng. (Engineering Medal—Entrepreneurship), Sher Ali Mirza, P.Eng. (Engineering Medal—Research and Development), Bert Wasmund, P.Eng. (Engineering Medal—Engineering Excellence), Tom Chau, P.Eng. (Engineering Medal—Young Engineer), Ralph Haas, P.Eng. (Engineering Medal—Research and Development), and Frank Ewasyshyn, P.Eng. (Gold Medal).

Engineering Medal

Research and Development

Ralph Carl George Haas, PhD, P.Eng., The Norman W. McLeod engineering professor and distinguished professor emeritus, University of Waterloo

Sher Ali Mirza, PhD, P.Eng., professor emeritus of civil engineering, Lakehead University

Engineering Medal

Young Engineer

Tom Chau, PhD, P.Eng., scientist and innovation theme leader, Bloorview Research Institute, Bloorview MacMillan Children's Centre; assistant professor and Canada research chair in paediatric rehabilitation engineering, Bloorview Research Institute; assistant professor, Institute of Biomaterials and Biomedical Engineering, University of Toronto

Citizenship Award

Stuart Weston (Wes) Libbey, P.Eng., instructor, St. Lawrence College (retired)

Kevin James Lockey, P.Eng., senior engineer, mechanical & metallurgy department, electricity production services, Ontario Power Generation Inc.

Many thanks to the corporate partners and corporate table hosts of the 2005 Ontario Professional Engineers Awards.

Canadian Standards Association
Celestica
DaimlerChrysler Canada
DaimlerChrysler Corporation
Earth Tech Canada Inc.
Group Retirement Services
Hatch Ltd.
Ian Martin Limited
Jordan Engineering Inc.
Manulife Financial
McIntosh Engineering Ltd.
McMaster University
The Personal Home & Auto Insurance
Stantec Consulting Ltd.
University of Toronto
University of Waterloo
University of Windsor
Valiant Machine and Tool Inc.
XL Design Professional

Engineers' Weekend 2005 proves valuable for participants

By Jennifer Coombes

A busy two-day convention for Ontario's engineers, cohosted by the Ontario Society of Professional Engineers (OSPE) and PEO, took place November 18 and 19 at the Hilton Suites Toronto/Markham Conference Centre.

Following greetings by Engineers' Weekend Steering Committee Chair and Friday's Master of Ceremonies Márta Ecsedi, P.Eng., OSPE President and Chair Chris Cragg, P.Eng., and PEO President Bob Goodings, P.Eng., participants were off and running with a program that addressed day-to-day skills needed in the engineering workplace, as well as some of the key issues facing the engineering profession of late.

Friday, designated Leadership Development Day, comprised concurrent workshops provided by Michael Howes, partner, 2WA Consulting Inc.; Palma Robinson; Arlie Brayman, Lead Through Excellence Inc.; and Anne Louise Bermingham, president, 2WA Consulting Inc., on the topics of meeting facilitation, effective influence through interpersonal communications, time management, and team leadership, respectively.

A luncheon keynote address by Danielle Bushen and Eleana Rodriguez, both principals of Mercer Human Resource Consulting, the firm commissioned to conduct the OSPE 2005 Employer Compensation Survey, provided valuable highlights from the survey findings. (The complete survey may be ordered through www.ospe.on.ca.)

Later in the afternoon, participants were briefed on the latest negotiations with the attorney general and the Ministry of Municipal Affairs and Housing regarding the designer qualification and registration



Tony Wong, MPP, Markham, delivers a keynote on communicating your message at Engineers' Weekend 2005.

requirements of the *Ontario Building Code* that took effect on January 1, 2006 (see news item, p. 11 for more information).

Greeted again on Saturday by Chris Cragg and Bob Goodings, and by Saturday's Master of Ceremonies Catherine Karakatsanis, P.Eng., one of OSPE's board of directors, the second morning included keynote presentations by Hon. Douglas Frith, CEO, Canadian Motion Picture Distributors Association; John McHugh, senior vice president, Avant Strategic Communications; and Robin Sears, principal, Navigator, who provided guidance

about how to get a message heard by federal and provincial governments, municipal governments and the media, respectively. Following the presentations, participants took part in facilitated breakout sessions on ways to get the profession's messages heard by the target audiences.

The afternoon panel session focused on the topic of communicating with politicians and the media. Panelists Tony Wong, MPP, Markham; Jim Jones, regional councillor and former MP, Town of Markham; and Ian Urquhart, Queen's Park Bureau, *Toronto Star*, took part.

Foundation for Education continues its support

By NICOLE AXWORTHY

A recent donation to the Ontario Professional Engineers Foundation for Education (FFE) may lead to a new support program directed exclusively to PEO members who want to upgrade their skills.

"The [foundation] board will be discussing the prospect and benefit of creating a unique support program for existing engineers," says newly elected FFE President Stephen Jack, P.Eng., who recently accepted a \$10,000 donation from the Engineering Institute of Canada (EIC), Toronto branch. The proceeds are from EIC Toronto's professional development program, which has been discontinued.

More than 90 per cent of donations to the foundation go directly to help students who are interested in pursuing an engineering degree at an Ontario university with an accredited engineering program. In 1986, the foundation also established the Engineers Benevolent Fund, which has helped more than 75 PEO members get through financial difficulties.

To date, the FFE has been sustained almost exclusively by member donations. In 2004, 2300 members provided a total of \$86,000 toward scholarship commitments (an average of \$37 a donation). At the end of October 2005, member donations stood at \$70,000, a 5 per cent increase from the same time the previous year.

Jack was elected president and chair of the foundation, an independent registered charity, in September, succeeding Derek Wilson, P.Eng. He says the main goals for



FFE President Stephen Jack, P.Eng., (centre right), accepts a \$10,000 donation to the FFE from Brian Ross, P.Eng., of the Engineering Institute of Canada, Toronto branch. Brian Helm, P.Eng. (far left) and Derek Wilson, P.Eng., past FFE president (far right), also attended.

the foundation in 2006 centre on fundraising and continuing a review of its primary mandate of providing scholarships. "Specifically, we hope to increase our fundraising revenues by initiating a mail campaign targeting engineering companies and employers, and by encouraging chapters to organize chapter-sponsored charity events," he says. The board will also consider the proposal to expand the foundation's educational support program to include help for professional engineers who wish to upgrade their skills and competence. Equally important is the need to increase the foundation's and profession's presence within the student community through direct involvement at awards presentations, he says.

Donations to the foundation can be made online anytime at www.penged.on.ca, or when renewing the annual P.Eng. licence.

Access to professions top priority: Thomson Report

BY KAREN HAWTHORNE

The provincial government has released its much-anticipated review of the registration and appeals processes for regulated professions in Ontario. The report is part of its strategy to help internationally trained professionals practise in their fields sooner. Ontario currently welcomes some 120,000 immigrants each year, many of whom were highly qualified professionals and tradespeople in their countries of origin. The report, *Review of Appeal Processes from Registration Decisions in Ontario's Regulated Professions*, was written by George Thomson. Thomson is a former provincial court judge, director of education for the Law Society of Upper Canada, and chair of a provincial committee on social assistance reform, who is now senior director, international, National Judicial Institute, a non-profit organization that plans, coordinates and delivers judicial education.

In September 2004, the Minister of Training, Colleges and Universities appointed Thomson to review the regulatory community's appeals processes, and develop a set of common principles and best practices for a fair registration and appeals process.

"With regulatory bodies making decisions as important as whether individuals are permitted to practise a profession or hold themselves out as members of a particular profession, access to an independent appeal

"A concerted effort will be required by government, regulatory bodies, and others to achieve the vision that this report sets out for the benefit of qualified applicants to the professions, regulatory bodies, and, most important, the Ontario public," Thomson writes.

is vital," Thomson writes. "Well-developed, transparent, and independent appeal mechanisms enhance public confidence in the overall registration process. Independent appeals constitute an accountability mechanism that fosters due diligence and promotes high-quality internal procedures and a concerted effort to avoid or remedy errors so that appeals will not be launched."

In his review, Thomson looked at the appeals processes for the registration decisions of Ontario's 36 professional regulatory bodies, in consultation with provincial and national regulators, community organizations, and government ministries. Currently, 24 of 36 regulated professions in Ontario have an independent appeals process—including professional engineering, under the *Professional Engineers Act* (see sidebar "PEO's licensing hearing process").

In his review, Thomson says he was guided by the principles provided by the minister: fairness, accountability, objectivity, transparency, and collaboration. He found that, while independent appeals are important, there was a strong sense among those consulted that appeals are only a part of providing access. Participants cited such issues as the appropriateness of entry-to-practice requirements and the availability of additional courses and bridge programs to help international graduates acquire any missing qualifications as also fundamentally important.

The report offers 25 recommendations, including measures to ensure fair registration practices, available information and support for applicants, clear and uniform criteria for decision-making, and applicant access to documents on file pertaining to his or her application. Two best practices for registration processes were cited: Australia's appeal guidelines and Quebec's program of support for immigrants.

Thomson said he sees an independent appeal of professional registration decisions as a significant element of due process for all applicants, especially international graduates.

"A concerted effort will be required by government, regulatory bodies, and others

to achieve the vision that this report sets out for the benefit of qualified applicants to the professions, regulatory bodies, and, most important, the Ontario public," Thomson writes.

To read PEO's full position on the issue of independent tribunals, visit www.peo.on.ca/POSITION/IEA.pdf.

The Ontario Ministry of Citizenship and Immigration will now begin a process of examining the report, consulting with stakeholders, and moving forward on implementation if the government adopts the recommendations.

A copy of the Thomson Report can be found at www.citizenship.gov.on.ca.

PEO's licensing hearing process

The files of applicants for licensing by PEO who do not appear to meet the prescribed licensing requirements in Regulation 941 are referred to the Academic Requirements Committee and often also to the Experience Requirements Committee for indepth review. Based on the recommendations of these committees, they are then advised by the Registrar of how they might meet the licensing requirements. If the applicants refuse to meet these requirements, or cannot meet them, they receive notice that the Registrar proposes to refuse to issue them a licence. This "Notice of Proposal to Refuse" affords them an opportunity to request a hearing by the Registration Committee, an independent first instance administrative tribunal.

After hearing the applicant's and PEO's cases, the Registration Committee may direct the Registrar to issue a licence because the applicant has met the requirements for licensing, direct the Registrar to carry out his or her proposal to refuse to issue a licence, or exempt the applicant from the prescribed licensing requirements. Both the applicant and the Registrar may appeal the Registration Committee decision to the Divisional Court. If applicants do not exercise their right to a hearing before the Registration Committee, the Registrar proceeds with refusing to issue a licence. Although similar access to the courts is available in all regulated professions, "it is not a practical or affordable remedy for many parties," Thomson writes.

PEO, for its part, questions how an additional layer of appeal between the Registration Committee and the courts will better serve licence applicants.

PEO introduces new online payment methods

By KAREN HAWTHORNE

PEO licence holders can now take advantage of PC banking, telephone banking and ATM banking to pay their fees to PEO and make charitable donations.

Launched in December 2005, these new payment methods offer convenience to members and expand on the option of paying licence renewal fees online by credit card that was introduced last year.

PC banking, telephone banking and ATM banking are available for licence renewals, Ontario Society of Professional Engineers membership fees, and donations to the Ontario Professional Engineers Foundation for Education and the Canadian Engineering Memorial Foundation.

PC banking and telephone banking allow funds to be deducted from an individual's account on a prescribed date, which reduces postage costs and environmental impact. Compared with credit card payments, these methods are also more cost-effective for PEO to process.

Currently, professional engineers, Certificate of Authorization holders, other licence holders, and engineers-in-training (EITs) may take advantage of these payment methods. Those whose licences have lapsed or those receiving a fee remission must contact Jenny Melendez, PEO's accounts services administrator, at 416-840-1091 for further information.

"We are introducing new PEO payment methods in addition to our conventional methods of payment," says Daria Babaie, P.Eng., PEO's director, administrative services, and treasurer.

"We'd like to encourage people to take advantage of these new payment options and to choose the method that best suits their needs. We are a customer-focused organization, so this is an important step forward to offer cost-effective methods of payment for licence renewals."

Licence holders use their PEO licence number as their account number, even when paying OSPE fees or making char-

itable donations. EITs use their file number as their account number. Companies making payments for multiple licence holders or EITs need to set up a separate payment for each one.

Payments can be submitted electronically through most chartered banks, except the Royal Bank, which does not take ATM payments.

There are four separate PEO accounts to choose from:

- PEO-Fees and Dues;
- PEO-OSPE Fees;
- PEO-Foundation for Education; and
- PEO-Memorial Foundation.

Individuals wanting to make payments to more than one account must register their account number for each payment type.

Generally, PEO is notified of a payment the business day after the payment is deducted from a bank account. Following receipt of payment, PEO will issue a wallet licence for P.Engs, and a receipt for EITs. Please allow 10 days for PEO to process the transaction and mail the licences and receipts.

For additional information, please visit www.peo.on.ca, or contact accounting representatives Luisa Liu at 416-840-1088 or Jenny Melendez at 416-840-1091.

Inco offers new scholarships through CEMF



Front row, left to right: Christina Catley, CEMF scholarship recipient; Suzelle Barrington, CEMF president; Scott Hand, chairman and CEO, Inco Ltd.; Belinda Stronach, Minister of Human Resources and Skills Development and Minister responsible for Democratic Renewal; Heather White, P.Eng., mine manager, Inco Ltd.; Rebecca Winters, Inco Ltd.; Pascale Champagne, CEMF scholarship recipient; Veronic Tetreault, CEMF scholarship recipient.

Back row, left to right: Tammy Champ, Inco Ltd.; Theresa Nyabeze, Inco Ltd.; Cathy Stewart, Inco Ltd.

With the aim of reversing the declining enrolment of women in engineering, Inco Limited will quadruple its funding and sponsor three additional graduate scholarships for women in engineering through the Canadian Engineering Memorial Foundation (CEMF). The scholarships are worth \$10,000 each and will be awarded annually for three years. Scholarship criteria and application information are available on the CEMF website at www.cemf.ca.

CCPE launches grassroots government relations

By KAREN HAWTHORNE

The Canadian Council of Professional Engineers (CCPE) is calling for professional engineers across the country to have a voice on Parliament Hill.

Following a grassroots pilot program in 2005, CCPE plans to roll out a full-scale government relations program this spring after the January federal election determines the MPs of influence the program will target.

Called Bridging Government and Engineers (BGE), the program is intended as a blueprint for an extensive, long-term approach to link representatives of the engineering profession and policymakers. With the help of its constituent members, the provincial and territorial engineering regulators, CCPE will recruit professional engineers as “champions” of the profession to undergo government relations training in sessions to be held across Canada. These champions will then liaise with the MPs in the ridings in which they live or work to communicate key messages and create awareness of the profession.

“I’m really hoping that in about four years, we will have every MP met by an engineer,” says CCPE CEO Marie Lemay, P.Eng., ing. “The engineering profession is not a profession that is well-known. It is very important that we build the understanding of the role of the profession and the extremely important role that we can play in policymaking.”

“It is very important that we build the understanding of the role of the profession and the extremely important role that we can play in policymaking.”

—CCPE CEO Marie Lemay, P.Eng., ing.

The pilot, comprising members of CCPE’s board of directors and past presidents, had participants undergo training on such topics as setting up meetings, communication techniques, how the federal committee system works and how legislation is passed. The trained group then met their MPs, and results were presented to CCPE’s board in October. The board approved a three-year rollout of the program.

With more than 160,000 professional engineers in Canada, Lemay is convinced that 308 professional engineer ambassadors will volunteer their time and effort to reach the same number of MPs. If more come forward and there is some overlap in various ridings, additional representatives will be selected to go through the training and act as alternates.

“We want people who have a passion for the profession. If they have strong oral and written communication skills, and are involved in their community, that’s the ideal,” Lemay says. Delegates must be prepared to devote time to schedule a meeting with their MPs, keep the lines of communication open with follow-up contact, and report back to CCPE on results and any requests for additional information.

The BGE program aims to complement CCPE’s existing Ottawa-based government relations program that began in earnest five years ago and has made considerable progress, Lemay says.

“At first we were an unknown quantity on the Hill. Now we’re getting calls to present to [parliamentary] committees and we’re getting calls from different departments—things that we didn’t used to get,” she says. “There’s a real void for the type of expertise that we can bring to the table.”

The BGE program will facilitate the process by communicating position statements and issues to MPs so they will be more receptive to concerns and aware of the professional engineering community when they come to Ottawa.



CCPE CEO Marie Lemay, P.Eng., ing., talks shop with Hon. Peter Milliken, speaker of the House of Commons and MP for Kingston and the Islands (centre), and CCPE President Colin Smith, P.Eng., (right) at a parliamentary reception held October 4.

"In reality, every single one of us is an ambassador to the profession, so it's just asking some 300 to put a little time into this and do a little extra work," says Lemay.

On the Ontario front, PEO's Government Liaison Program (GLP) is also underway, following a 2005 pilot in which PEO members were recruited, trained and continue to meet with their MPPs to present PEO-prepared government relations packages and PEO mementoes (a framed print of an engineering montage entitled "The Calling").

Based on the pilot's success, Council charged an Executive Committee working group with integrating a more permanent program into PEO operations, incorporating the existing network of chapters to deliver the regulator's message across the province. Council approved the GLP as an ongoing PEO initiative at its Sep-

tember 23 meeting; the program is based on three pillars: a strong, local presence, a legislative framework, and policy and communication support. A PEO project team is mapping out the operational details.

The initial 70 volunteer PEO spokespeople will continue their participation, while volunteer numbers are expected to grow after the plan is discussed at the Regional Councillors Committee meeting in January.

"Now there will be a structure in place with budgets, defined roles, recruitment procedures, and ongoing PEO support to make the program much more effective," says Tom Chessell, PEO manager of volunteer management.

Engineers who are interested in participating in the BGE program can contact Tom Chessell at 416-840-1107 or 800-339-3716, ext. 1107, for further details.

"Now there will be a structure in place with budgets, defined roles, recruitment procedures, and ongoing PEO support to make the program much more effective."

—Tom Chessell, manager, volunteer management

2005 National Building Code is objective-based

BY KAREN HAWTHORNE

The 2005 National Building Code (NBC), now available, represents a fundamental shift from a prescriptive standard to an objective-based standard. Prepared by the Canadian Commission on Building and Fire Codes, the NBC provides a model for provincial and territorial building and fire regulations.

The NBC covers the construction of buildings, including extensions, substantial alterations, buildings undergoing a change of occupancy, and upgrades of buildings to remove unacceptable hazards.

"We analyzed the code from top to bottom. We looked at every requirement, the intent behind the requirement, and the applications of each requirement," says Cathy Taraschuk, P.Eng., senior technical advisor, structural design, with the National Research Council, which publishes the NBC.

In the new code, every requirement is tied to a specific objective and subset of functional requirements, opening the door for designers to use predefined solutions, or to propose alternatives with equal or better performance. Although building code requirements were always developed with specific objectives in mind, the objectives were not stated and not always obvious.

"If you propose an alternative to what's stated in the code, you will now have guidelines that are much more explicit," says Taraschuk. "So it will help people who want to come up with innovative solutions and innovative designs. And it will also help the building authorities when they have to assess those [designs], because they will know what objectives they have to assess against."

By having clear requirements, designers will know what's expected, says James Douglas, manager of code development, legislation and appeal with the Ontario Ministry of Municipal Affairs and Housing. "When the code provides for these alternative solutions, it creates the opportunity for more innovation."

More than 800 technical changes were made to the NBC, with part four's structural design codes—a key focus for engineers—receiving a major overhaul.

Major changes include establishing importance categories, where buildings are slotted into different importance categories to meet specific objectives; the application of limit state design, instead of work and stress design; and revamped exposure factors for wind, snow and rough terrain.

Advances in technology and climate change have also been factored into the new codes. For example, because buildings must withstand earthquakes,

"We're providing better buildings. We're fine-tuning the whole process. We're making it so that the building you're designing will fit better to what is actually going to happen," says Taraschuk.

A revamped *Ontario Building Code*, due out in spring 2006 following government approval, will harmonize with the NBC where possible, with part four almost entirely in line, says Douglas.

The Ontario code, however, will differ in some provisions for water and energy conservation, and barrier-free access issues.

Transition training for the new *Ontario Building Code* will continue throughout 2006 (see www.obc.mah.gov.on.ca for fur-

"We analyzed the code from top to bottom. We looked at every requirement, the intent behind the requirement, and the applications of each requirement," says Cathy Taraschuk, P.Eng., senior technical advisor, structural design, with the National Research Council, which publishes the NBC.

dynamic analysis is now used instead of the previous static approach.

"An earthquake is a dynamic effect; it's not a static force applied to a building," Taraschuk explains. "So, a dynamic approach is a much better way to handle the design of structures for earthquakes. Now that we have our data in spectral hazard format, and also with the fact that there are so many computer programs out there to assist the designer, it just makes sense to make this the default analysis."

The requirements applied to post-disaster buildings, such as hospitals, fire halls and school gymnasiums that act as refuges, have also been tightened up.

ther news and details), while technical seminars across Canada for the NBC will also continue into this year. A new CD-ROM version of the 2005 NBC, a CD-ROM version of a 2005 NBC user guide with application and intent statements, and a CD-ROM and printed version of the 2005 NBC structural commentaries is scheduled to be available early this year. The printed version of the 2005 NBC is now available. For more details, visit www.nationalcodes.ca.

"People are always asking, what is the rationale behind this code requirement? So this user guide will explain the analysis," says Taraschuk.

Panel session helps internationally educated

By JENNIFER COOMBES

International engineering graduates can have a more difficult time finding their career footing in Ontario than their Canadian-educated counterparts, but there are ways to make integration easier. Such was the message at a well-attended panel discussion hosted in October by PEO's Etobicoke, Toronto Humber, Mississauga and North Toronto chapters.

Four internationally educated professional engineers were invited to share their experiences—triumphs as well as bumps in the road—in developing their Canadian engineering careers. All were able to offer strategies and valuable advice to up-and-comers attempting to land their first engineering jobs in this country.

Nabil El Khazen, P.Eng., a consulting structural engineer educated in Lebanon, left a job in Abu Dhabi, United Arab Emirates, to emigrate to Canada. Two hundred job applications and 200 rejections later, El Khazen finally got a job as an assistant to a junior draughtsperson, making one-eighth of his Abu Dhabi salary. Despite the apparent setback, he recognized the opportunities available to him in Canada and worked his way up through the ranks very quickly.

He offered two pieces of advice. First, be prepared to start at the bottom. In terms of employment, “nothing is too menial” is the advice he gives to friends and family. Second: Recognize the culture you're in. “What works in Havana doesn't work in Toronto, and what works in Toronto doesn't work in Havana,” El Khazen says. “Speak the language and respect the differences. With these principles, you can be parachuted anywhere in the world and you will be successful.”

Tapan Das, PhD, P.Eng., an electrical and electronics engineer, came to Canada from India via England. He has worked as a technical manager, director and vice president of engineering at Nortel, Lucent and SGNTT and has expertise in developing all manner of

electronics, including integrated circuits, telecommunications, wireless technologies, TV, WiFi, and VoIP. He agrees it is vital to immediately learn and adapt to the work culture and interpersonal relationships of the host country. For example, he discovered, “In England, if someone says ‘I would do that,’ it really means ‘you should do that!’” In job interviews, he says, candidates should make eye contact with their interviewer. He says that in many eastern cultures, the tendency is to look down. He also encourages the interna-

the first months, I wasn't customizing my resume and I got a poor response.” His advice is to “tailor your resume for each job, focusing on your experience related to that job. Put yourself in your employer's shoes.”

Rakesh Shreewastav, P.Eng., a project engineer with the ministry of transportation and a newly appointed PEO Councillor, considers his international training an asset not a barrier. Born in Nepal and educated there and in Russia, Shreewastav was initially a bit discouraged and disappointed with his experiences in Canada.



Four internationally educated engineers shared their successes and failures in developing their engineering careers in Ontario at a panel session organized jointly by four PEO chapters. Left to right, Moody Farag, P.Eng., manager admissions, PEO; Tapan Das, PhD, P.Eng.; George Senkiw, P.Eng., chair, Etobicoke Chapter; Samir Pathak, P.Eng.; Rakesh Shreewastav, P.Eng.; and Nabil El Khazen, P.Eng.

tionally educated to find someone in their organization to look to as a mentor and to learn from.

Das' parting advice: “If you have a belief, pursue it against all odds. A lot of people will be against you, but a lot of people will support you as well.”

Samir Pathak, P.Eng., a young chemical engineer from India, worked as an engineer in his native country for a couple of years, but wasn't interested in a life that meant doing the same thing day in and day out. He worked in the UK before immigrating to Canada. Getting a job in Ontario, however, proved a challenge: “In

His advice to those looking to integrate quickly into Ontario's engineering profession is to take advantage of the resources available to you from professional engineering organizations such as PEO and the Ontario Society of Professional Engineers (OSPE), and have confidence in yourself. Shreewastav says, “Network and be determined. A positive attitude makes a difference.”

Following the guest speakers, Moody Farag, P.Eng., PEO manager of admissions, and Peter DeVita, P.Eng., representing OSPE, answered questions concerning the licensing process.