

JULY/AUGUST 2017

ENGINEERING DIMENSIONS

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LOOKS TO THE
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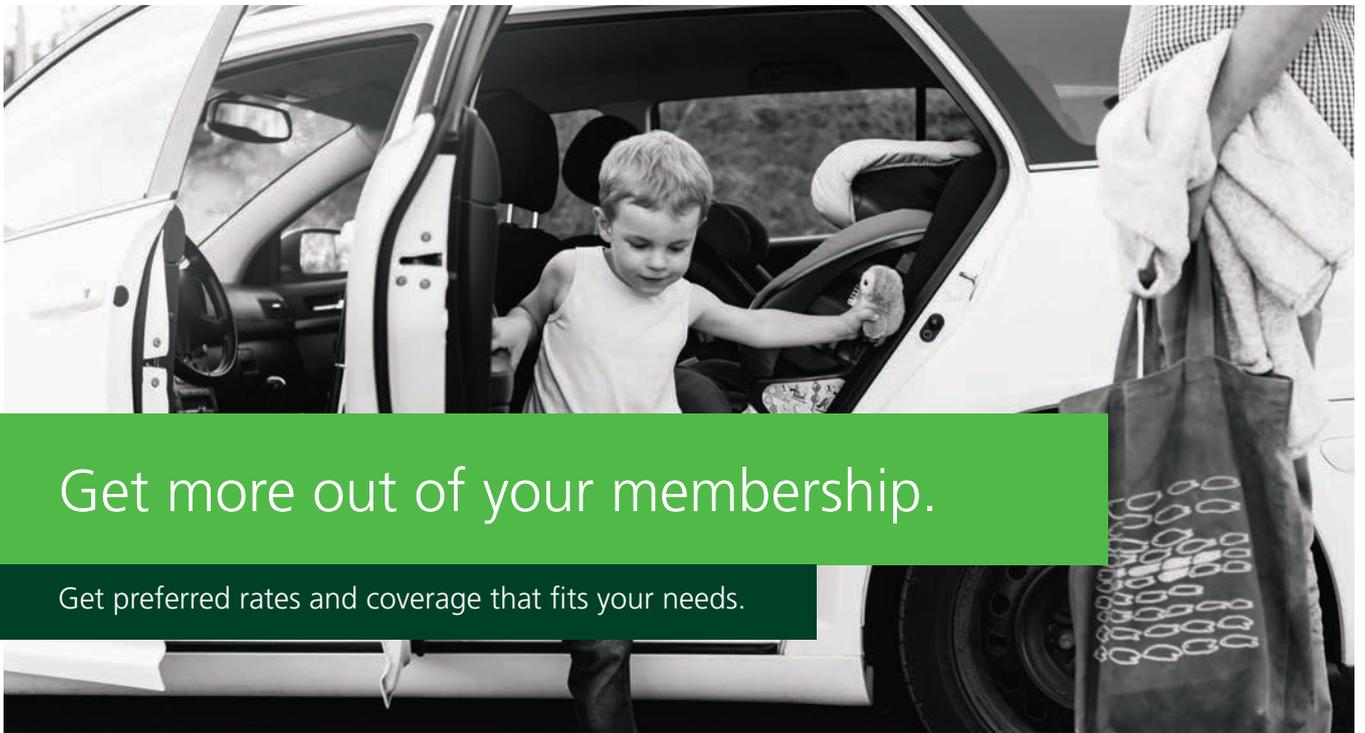
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2018 Council nominations
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GETTING THE MESSAGE OUT

By Nicole Axworthy

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It's been almost three months since PEO staff, volunteers and other members packed up and headed north to Thunder Bay for the association's

95th Annual General Meeting (AGM), and this issue we offer you full coverage of the weekend events, including the business meeting (p. 8), Volunteer Leadership Conference (p. 12) and Order of Honour gala (p. 13).

This year, the AGM marked the departure of president George Comrie, P.Eng., FEC, and the welcoming of 2017-2018 President Bob Dony, PhD, P.Eng., FEC, and new councillors during the yearly turnover of PEO Council (see "Introducing PEO Council 2017-2018," *Engineering Dimensions*, May/June 2017, p. 24).

As you get to know new President Dony through his President's Message columns this year (p. 6), you'll notice his calm yet confident approach to presidency and his emphasis on a few key issues. Most notably, the University of Guelph professor is determined to make any necessary changes to help the next generation of engineering graduates make their mark on the profession, including education and curriculum enhancements that form the basis for program accreditation through Engineers Canada's Canadian Engineering Accreditation Board, which reviews engineering undergraduate programs and certifies new degree programs, and (hopefully) lead to PEO licensure. We let Bob explain how a focus on the future is especially

important, given the rapidly evolving specialties within the profession, in "Changing demographics an opportunity not to be missed" on page 28.

On the subject of education, the other main focus of our July/August issue is PEO's practice standards and guidelines and, in particular, the efforts PEO's practice advisory group is making to raise their profile and value in providing crucial professional practice information to members. "PEO practice advisory group fine-tuning crucial information delivery service" (p. 34) explores the resources PEO offers to help educate members on their duties and responsibilities in various areas of practice. Traditionally, this information flows to members by way of published performance standards, practice guidelines and occasional bulletins, as well as phone hotlines and website directories. PEO, as the regulator of professional engineering, is responsible for ensuring practitioners conform to generally recognized norms of practice, so it's crucial the practice and performance standards information is accessible, readily understood and, above all, put into practice.

It's almost election time, so this issue we're also including all you need to know to nominate members for the 2018 Council elections. Starting on page 42, you'll find the call for candidates, voting procedures and election publicity procedures. Be sure to make note of the important deadlines if you want to get involved. **e**

THIS ISSUE Can information be made more effective? This time we look at PEO's practice services advisory group to uncover what they are doing to fine-tune information delivery to membership. We also shed more light on new President Bob Dony, PhD, P.Eng., FEC, and his aspirations for the coming term.

ENGINEERING A SMARTER APPROACH TO LICENSURE

By Bob Dony, PhD, P.Eng., FIEE, FEC



In my previous President's Message, I wrote about the need to address concerns raised about the evolution of our engineering accreditation system. Having just returned from the Engineers Canada annual general meeting, I noted that accreditation was a topic of concern across the country as well. This is a timely opportunity for us to examine the fundamentals of our accreditation system and how it serves the regulatory obligations of PEO.

For most of our sister "right to practise" regulators, the gold standard for entry into the profession includes not only graduating from an accredited degree program, but passing a set of standardized technical exams. For example, the law societies have their bar exams and the colleges of physicians have their board exams. Even for the professional engineer (PE) licence in the United States, the requirements include obtaining a degree that is accredited by the Accreditation Board for Engineering and Technology, and then passing both the National Council of Examiners for Engineering and Surveying fundamentals of engineering exam and the principles and practice of engineering exam.

In Ontario, the academic (technical) requirements for licensure is "a bachelor's degree in an engineering program from a Canadian university that is accredited to the Council's satisfaction" or "equivalent" (R.R.O. 1990, Reg. 941 33.(1)1). No further technical exams are required. This is true across the country for our sister engineering regulators. So why is engineering different from other professions in not requiring additional technical exams after graduation? I think we've simply engineered a smarter approach.

THE MODERN ACCREDITATION PROCESS

For over 50 years now, the Canadian Engineering Accreditation Board (CEAB) has been accrediting programs nationally to "Council's satisfaction." The CEAB is a board committee of Engineers Canada, the national organization of the provincial and territorial engineering regulators, including PEO, who are its owners. The CEAB has produced a set of criteria that engineering programs must meet to be granted accreditation. The accreditation process includes a detailed questionnaire for the educational institution, a two-and-a-half-day site visit by a team of senior engineers, with a final decision by the entire CEAB board. The maximum period for accreditation is six years, after which the institution must re-apply for a full accreditation visit. The accreditation decision applies to programs, not departments or universities. Over the years, over 100 different programs have been accredited, from aeronautical engineering at the Royal Military College of Canada to water resources engineering at the University of Guelph, and have included a variety of instructional methods, from classical lecture-based delivery to fully problem-based learning at Université de Sherbrooke.

The CEAB criteria includes aspects found in most other modern accreditation systems: curriculum analysis, student environment, academic and support staff, and facilities and resources. They were also updated recently and now require institutions to define and evaluate a program's learning outcomes and a continual improvement process for curriculum renewal based on their learning outcomes assessment. Most of these criteria apply to the program in general. For example, the degree to which students meet the learning outcomes is determined by statistical sampling of student performance.

While these program-based criteria are common to other accreditation systems, the CEAB criteria also include rigorous student-based criteria. These criteria follow the "minimum path" principle: every student must meet the criterion for the criterion to be met. As part of the curriculum analysis, an overall minimum number of instructional hours (or equivalent problem-based learning) is defined. In addition, minimum numbers of hours are defined for specific curriculum components: mathematics, natural sciences, engineering sciences, engineering design, and complementary studies. The institution must show that every graduate of the program meets these minimum standards. During the visit, the institution must also provide for every course that may be part of the program course notes, textbooks, examinations, tests, labs, projects, etc., complete with graded student examples.

It is the review of this course material, coupled with the detailed curriculum analysis, that gives us as regulators the confidence in the technical rigour of a program. If we, through the visiting team, are satisfied with the rigour of the thermodynamics exam an applicant has taken in their accredited program, why would

we as a regulator assign an additional thermodynamics exam as part of the licensing process? Besides, who do we have set technical exams for applicants not from CEAB-accredited programs? Engineering professors who teach such courses in CEAB-accredited programs! In effect, our system combines the accredited education and technical board exams into one unified process.

However, such thorough student-based, minimum-path curriculum analysis is not part of most other accreditation systems. Therefore, it makes sense that other regulators would need additional board exams to ensure each applicant meets the requisite minimum level of technical expertise.

EVOLVING APPROACHES

Our unique approach to accreditation that so closely integrates the education into the licensing process is, I believe, a major contributor to the strength of our engineering profession in this country. Without the use of standardized board exams, educational institutions are free to develop innovative programs that are truly world-class. And the evidence bears this out. Canada is one of the top exporters of engineering services in



AS A PROFESSOR OF ENGINEERING MYSELF, I KNOW FIRST-HAND THAT THE CLASSROOM OF TODAY IS NOT THE SAME AS IT WAS EVEN A FEW YEARS AGO. THROUGH RESEARCH INTO NEW TEACHING AND LEARNING METHODS, WE ARE DEVELOPING MORE EFFECTIVE EDUCATIONAL APPROACHES TO REPLACE THE TRADITIONAL “CHALK AND TALK” OF OLD.

the world, punching well above our weight. Further, the recent announcements of Ford and General Motors to establish autonomous vehicle research programs in Ontario is further evidence of the excellence of our engineering profession.

However, as much as we can rightly celebrate our successes, we cannot remain complacent. The deans of engineering, both provincially and nationally, have raised concerns that the current accreditation criteria may not be allowing yet further innovation in educational methods and curriculum. As a professor of engineering myself, I know first-hand that the classroom of today is not the same as it was even a few years ago. Through research into new teaching and learning methods, we are developing more effective educational approaches to replace the traditional “chalk and talk” of old. The “sage on the stage” is evolving into the “guide on the side.” The use of technology is ubiquitous. Students’ expectations and backgrounds are changing. The profession itself has evolved.

WORKING TOGETHER

On May 29, PEO jointly hosted a workshop, “The Academic Requirements for Licensure: Beyond 2022,” at McMaster University between the Ontario deans of engineering and representatives from PEO that included senior staff, Council and members of the Academic Requirements Committee (see “Workshop discusses academic preparation of future practitioners,” p. 25). It was an opportunity for the two sides involved with the academic requirements to licensure to talk with each other about our perspectives and concerns. Some of the topics of discussion included internationalization of the profession and education, teaching and learning methods, and curriculum content measurements, amongst others. By the end of the workshop, all agreed that we must continue to work together to evolve our licensing process, adapting to the innovations in engineering education already in the classrooms across the province. There has been much interest nationally in this workshop so it is an opportunity for Ontario to take a leadership role. As PEO is soon to move forward into its second century of regulating the profession, we all understand that we as a regulator must not just adapt to the changing profession, but become a leader of that change. [e](#)

REGULATORY EVOLUTION AND PREPARATION OF NEXT GENERATION HIGHLIGHT AGM DEBATE

By Michael Mastromatteo

There are heady things in store for engineering regulation if the comments of PEO's incoming and outgoing presidents are any indication.

The regulator's 95th Annual General Meeting (AGM), April 22 in Thunder Bay, is an occasion to review the engineering regulation landscape and to salute the dedication and commitment of incoming and outgoing members of Council.

As is tradition, the annual meeting is preceded by the Volunteer Leadership Conference and Order of Honour awards gala, which recognizes professional engineers and others who have rendered conspicuous service to the profession.

For incoming President Bob Dony, PhD, P.Eng., FEC, a commitment to diversity in the profession and recognition of the changing conditions of engineering education are top priorities.

"We must ensure diverse voices are present at all levels of discussion within PEO, and we must embrace a culture of change as part of our core DNA," Dony said. "Succession planning and renewal are key to make sure fresh perspectives are brought into the organization."

As an engineering professor at the University of Guelph, and as a parent to three adult children now registered with PEO as engineering interns and a student member, Dony is steeped in the formation of the next generation of practitioners. He has also observed the sweeping changes to engineering education since he entered the profession in 1986. "We need to ensure educators continue to have the room to innovate and meet the challenges of today's professional environment on the one hand, while maintaining the technical rigour we require as a regulator on the other."

Dony is committed to transparency and proactive regulation as PEO contends with the increasing scrutiny governments and the public exert on self-regulating professions.

As one of his last official functions at the AGM, outgoing president George Comrie, P.Eng., FEC, paid tribute to departing members of Council and welcomed new councillors elected or appointed for the new Council year. Completing their terms were Roger Jones, P.Eng., FEC, Rakesh Shreewastev, P.Eng., FEC, Changiz Sadr, P.Eng., FEC, Ewald Kuczera, P.Eng., Pat Quinn, PhD (honoris causa), P.Eng., FEC, and Mary Long Irwin. Newly elected or appointed councillors include Councillors-at-Large Kelly Reid, P.Eng., and Roydon Fraser, PhD, P.Eng., FEC, Northern Region Councillor Dan Preley, P.Eng., Eastern Region Councillor Ishwar Bhatia, P.Eng., East Central Region Councillor Thomas Chong, P.Eng., FEC, West Central Region Councillor Warren Turnbull, P.Eng., and Western Region Councillor Lola Hidalgo, P.Eng.

Comrie also welcomed special guests, including Engineers Canada President Chris Roney, P.Eng., FEC, Jay Nagendran, P.Eng., of the Association of Professional Engineers and Geoscientists of Alberta, Tara Zrymiak, P.Eng., and Bob McDonald, P.Eng., of the Association of Professional Engineers and Geoscientists of Saskatchewan, Lindsay Melvin, P.Eng., of Engineers Geoscientists Manitoba, and Len White, P.Eng., and Chris Zinck, P.Eng., of Engineers Nova Scotia.

Other guests recognized by Comrie were Michael Monette, P.Eng., and Sandro Perruzza of the Ontario Society of Professional Engineers, Stephen Morley, C.E.T., of the Ontario Association of Certified Engineering



PEO President Bob Dony, PhD, P.Eng., FEC, sporting the regulator's chain of office, talks about his top priorities for his time in office during PEO's annual general meeting in Thunder Bay.

Technicians and Technologists, Tony Lotimer of the Association of Professional Geoscientists of Ontario, John Stephenson of the Ontario Association of Architects, Doris Chee of the Ontario Association of Landscape Architects, Matt Farrell, C.E.T., of the Ontario Building Officials Association, Michael Lavdas of the Engineering Student Societies' Council of Ontario, and Marisa Sterling, P.Eng., FEC, of the Ontario Professional Engineers Foundation for Education.

An additional guest at this year's annual meeting was Don Rusnak, MP (Thunder Bay-Rainy River), who welcomed delegates to his riding and discussed the importance of engineering work in Ontario's northwest. As the only First Nations MP from Ontario, Rusnak also pointed out the significance of engineering works to Aboriginal communities throughout Ontario.

“In my professional career, I have worked in the forest industry, the public sector as a Crown prosecutor and in my own legal practice,” Rusnak said. “Throughout my career, I have worked with engineers over the years and I recognize the important role you play in ensuring our communities stay and remain safe.”

Following the greetings, Comrie presided over the presentation of two member submissions. Although member submissions are not binding on PEO Council, they are still considered examples of membership concerns.

The first submission, put forward by Lisa McCumber, P.Eng., and seconded by Darla Campbell, P.Eng., called on PEO to engage an external governance expert to advise Council on modernizing its operations to protect self-regulatory status. The motion also asked that the principles of a new governance model be presented to PEO Council before the 2018 annual meeting.

The second submission, put forward by PEO members Gedewon Yohannes, P.Eng., and Alyona Pereroslova, P.Eng., called on PEO to make its Financial Credit Program available to refugee international engineering graduates.

Both motions were approved at the annual meeting and will be presented to PEO Council for further deliberation.

In summing up his year as president, Comrie invited audience feedback as he compiled a PEO “report card” survey. Among the issues considered in the report card exercise were: How good a job are we doing of our core business? What are we doing well at, and what could be improved? How are we evolving as a profession? Are we making progress towards a better state of affairs? Although the regulator earned passing grades from delegates, there were two or three areas for improvement identified in the informal exercise.

Comrie later reflected on his three main priorities as last year’s president, among them regulatory excellence, clarity on exclusive scopes of practice for engineers, and leadership development/succession planning.

“We have been making slow but steady progress on many fronts,”

Comrie concluded. “However, we still have lots of work to do on these and other strategic initiatives. I remain optimistic for the future of our self-regulating profession. We have the talent; we have the energy and commitment, and I believe we have better processes to avoid some of the mistakes and conflicts of the past.”

In a departure from previous annual meetings, this year’s lunch-time presentation focused on the history, industry, community and engineering development of the host chapter’s region. Organized by PEO Lakehead Chapter members Larry Betuzzi, P.Eng., FEC, Jennifer Main, P.Eng., Louis Richard, P.Eng., FEC, Phil Riegle, P.Eng., and Michael Wesa, P.Eng., FEC, the 93-slide presentation was a tribute to Northern Ontario’s engineering community, including the Lake of the Woods, Lakehead, Algoma, Porcupine-Kapuskasing, Temiskaming, Sudbury and North Bay PEO chapters. The area represents about 3 per cent (2600 engineers) of the entire PEO membership, but makes up 85 per cent of the entire Ontario landmass.

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Chris Roney, P.Eng., BDS, FEC (left), then president of Engineers Canada and PEO director on the Engineers Canada board, has a word with Member of Parliament Don Rusnak (Thunder Bay-Rainy River), who attended the PEO annual meeting and paid tribute to engineers for working to build safer communities.



Former Ontario Society of Professional Engineers president Karen Chan, P.Eng. (left), catches up with Annette Bergeron, P.Eng., FEC, former PEO president and current PEO director at Engineers Canada.



PEO's government relations consultant Howard Brown (centre) meets up with lieutenant governor-appointed council members Iretomiwa Olukiyesi, P.Eng. (right), and Lew Lederman, QC.



New PEO Vice President Nancy Hill, P.Eng., LLB, FEC, speaks in support of one of the member submissions at the April 22 PEO annual general meeting in Thunder Bay.

LONGTIME PEO COMMUNICATIONS DIRECTOR RECEIVES 2017 PRESIDENT'S AWARD

By Duff McCutcheon

Recently retired PEO communications director Connie Mucklestone was honoured on April 21 with the association's President's Award—the first time the award has been presented to a current or former PEO employee. She received the award at PEO's Order of Honour gala during the association's annual general meeting weekend in Thunder Bay.

The President's Award is presented to non-engineers who have demonstrated extraordinary support for the engineering profession. And with more than 38 years as PEO's corporate voice, Mucklestone has done much to further the aims and objectives of both the association and the engineering profession in Ontario.

"Over the course of her long career, Connie has served as the association's corporate memory, possessing an uncanny ability to recall details—great and small—of past events, initiatives, people, places and just about anything and everything related to the engineering profession in Ontario," said President George Comrie, P.Eng., FEC, during the award presentation. "This skill, combined with an unmatched professionalism and dedication to her craft, allowed Connie to make a truly significant impact on the way in which PEO and the profession were promoted."

Mucklestone spent her entire career at PEO, starting out as an editorial assistant after graduating from Ryerson's School of Journalism, rising through the ranks of PEO's communications team and ultimately joining the senior management team as communications director.



Connie Mucklestone, PEO's former communications director, received the association's 2017 President's Award on April 21 in Thunder Bay.

Among her many accomplishments was transforming this magazine from the original *Engineering Digest* newsletter into *Engineering Dimensions*—now one of Canada's highest circulation engineering magazines.

"Aside from my trick memory, all the achievements mentioned in the citation were the result of the efforts of many PEO staff—particularly communications staff—and supported by PEO Council, which often took a leap of faith in approving what we proposed, like starting *Engineering Dimensions* in 1980 and the first PEO website in 1995," said Mucklestone. "I believe PEO has an important regulatory, public interest story to tell and I am confident it will continue to look for innovative ways to get this message out."



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V.G. SMITH AWARD PRESENTED



This year's recipient of the V.G. Smith Award is Isabelle Hemmings, P.Eng. (right). PEO President Bob Dony, PhD, P.Eng., FEC, presented the award to her during PEO's annual general meeting luncheon in April. The V.G. Smith Award is presented annually to a professional engineer who was licensed during the past year by writing technical exams, and who gained the highest mark in any three PEO exam papers—excluding the complementary studies and professional practice exams. Hemmings became a PEO member on April 15, 2016. She is a graduate of the University of Waterloo with a bachelor's degree in mathematics and a graduate of the University of Toronto with a master's degree in aerospace engineering. She successfully completed 10 technical exams with an average of 78 per cent, and her three highest scores were two scores of 89 per cent and one of 85 per cent.

UNCOVERING LEADERSHIP TALENT WHEREVER IT LIES

By Michael Mastromatteo

PEO volunteers have tremendous potential to develop leadership skills while working to advance the regulator's corporate objectives.

Speaking at the April 21 Volunteer Leadership Conference (VLC) in Thunder Bay, leadership consultant David Irvine of Alberta reflected on leadership opportunities for PEO's army of volunteers and committee members.

For the last five years, the VLC has served as the warm-up event to PEO's Order of Honour gala and annual general meeting.

The theme of the conference was "Building leadership capacity," and it was chosen not only to help volunteers organize their affairs at the chapter level, but also to encourage members to offer their skills and dedication at the corporate level.

The VLC is aimed at finding ways for PEO chapters and committee members to work together in support of PEO's core objectives.

Billed as The Leader's Navigator, Irvine's organization offers a range of products and services for building cultures and developing leadership capacity.

Throughout the day, Irvine led participants through an examination of PEO's work, and offered advice on how volunteers can build a culture of leadership within the organization. He began by focusing on PEO's recent vision, mission and value statements and offered advice on how these can be put into operation.

Describing culture as a way of putting values into practice, Irvine said the ultimate test of any organization is how it develops leaders who recognize their own potential and, in turn, advance the aims of the organization itself.

"An organization's core values are not 'corporate speak,'" Irvine said. "They are intended to inform individual and group behaviour. PEO volunteers should have a clear understanding of PEO's roles and responsibilities, and should demonstrate behaviours reflective of PEO's core values. In turn, PEO should ensure that all leaders demonstrate and live up to PEO's core values."

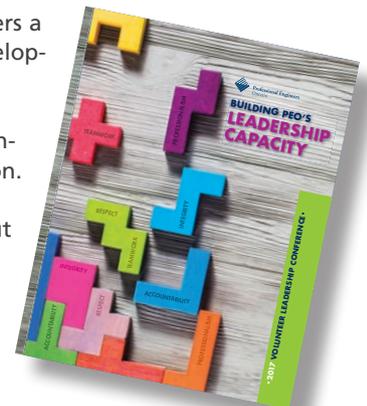
In welcoming Irvine to the event, PEO President George Comrie, P.Eng., FEC, said the main purpose of the conference is to provide an opportunity for representatives of PEO's volunteer leadership base to come together and enhance their leadership understanding and skills in a workshop setting.

Leadership development and succession planning have become important issues for PEO as it seeks to capitalize on its volunteer resources for more effective governance and the overall improvement of its regulatory role. Leadership building is also important as the regulator considers term limits and other measures to increase opportunities for members at large to consider serving on Council.

In the past, PEO committees and chapters have worked independently but the regulator decided five years ago to bring the two groups together to find solutions to common problems.

Participants in the VLC seemed especially engaged with the leadership-building exercises and pledged to put the ideas into practice at the local chapter and committee levels.

"I found our speaker very engaging and enlightening. As far as I could tell, he kept the entire audience interested and participating all day," said Warren Turnbull, P.Eng., West Central Region councillor and chair of the VLC planning committee. "I hope the participants will take what David [Irvine] talked about and return to their chapters or committees with new leadership skills, and that they start thinking about who in their respective groups should be getting ready to succeed them when they step down."



ORDER OF HONOUR RECIPIENTS CELEBRATED AT GALA

By Duff McCutcheon



PEO honoured newly inducted Order of Honour recipients (bottom row, left to right) Julien Gilbert Samson, P.Eng., FEC, Catherine Karakatsanis, P.Eng., FEC, FCAE, Denis Dixon, P.Eng., FEC, Andrea Winter, P.Eng., FEC, Steve Favell, P.Eng., FEC; and (top row, left to right) Greg Merrill, P.Eng., FEC, Doug Luckett, P.Eng., FEC, David Grant, P.Eng., FEC, Tom Murad, PhD, P.Eng., FEC, and Mohinder Singh Grover, PhD, P.Eng., FEC.

Ten extraordinary engineers were invested into PEO's Order of Honour on April 21 during the association's annual general meeting weekend in Thunder Bay. The inductees were recognized by PEO and their peers for their long-time volunteer leadership at both the chapter and association levels and their selfless contributions to the engineering profession.

Catherine Karakatsanis, P.Eng., FEC, FCAE, and Denis Dixon, P.Eng., FEC, were both inducted as Companions of the Order; while Andrea Winter, P.Eng., FEC, Steve Favell, P.Eng., FEC, David Grant, P.Eng., FEC, Mohinder Singh Grover, PhD, P.Eng., FEC, Doug Luckett, P.Eng., FEC, Greg Robert Merrill, P.Eng., FEC, Tom Murad, PhD, P.Eng., FEC, and Julien Gilbert Samson, P.Eng., FEC, were invested as Members.

The evening was attended by several special guests, including Engineers Canada President

Chris Roney, P.Eng., FEC; Michael Monette, P.Eng., president and chair, and CEO Sandro Perruzza of the Ontario Society of Professional Engineers (OSPE); Jay Nagendran, P.Eng., CEO and registrar, Association of Professional Engineers and Geoscientists of Alberta; Tara Zrymiak, P.Eng., president, and Bob McDonald, P.Eng., LLB, FEC, executive director and registrar, Association of Professional Engineers and Geoscientists of Saskatchewan; Engineers Geoscientists Manitoba President Lindsay Melvin, P.Eng., FEC; Chris Zinck, P.Eng., FEC, president, and Len White, P.Eng., CEO and registrar, Engineers Nova Scotia; Engineering Student Societies' Council of Ontario President Michael Lavdas; Doris Chee, president, Ontario Association of Landscape Architects; City of Thunder Bay project engineer Rick Harms, P.Eng.; Ontario Association of Certified Engineering Technicians and Technologists Past President Stephen Morley, C.E.T.; Matt Farrell, C.E.T., vice president, Ontario Building Officials Association; Ontario Association of Architects President John Stephenson, OAA; Marisa Sterling, P.Eng., FEC, president and chair, Ontario Professional Engineers Foundation for Education; and Order of Honour gala sponsor representatives Robert Szokup and Colin Harker of TD Insurance Meloche Monnex.

John Severino, P.Eng., chair of PEO's Awards Committee and himself a Member of the Order of Honour, was emcee for the awards presentations. "Tonight we celebrate those who, through their voluntary service to Professional Engineers Ontario, have helped shape the engineering profession," he said during his welcome speech. "Through their diligent efforts, tonight's inductees have made significant impact on engineering in their own communities, throughout our province and across the country. It is this professional attitude and service to the profession that distinguishes each of those we invest into the Professional Engineers Ontario Order of Honour."

Following are selections from the award recipients' acceptance speeches.

"I am extremely honored to be recognized by my profession and by Professional Engineers Ontario, such a well-respected organization and leader in self-regulation. Engineering is the most wonderful and rewarding profession; it is essential to society's health, safety and well-being, and so it has been a privilege for me to serve. I am very humbled to be

recognized by my peers and to be in the company of the present and past recipients who are remarkable women and men. When I started volunteering for PEO almost three decades ago, it was out of love for our profession. I just wanted to do whatever I could to contribute to making it the best that it could be; I never imagined how much I would gain in return or that I would be recognized in this way.

"I am grateful for all the leadership opportunities I have had, grateful that I was able to help advance the profession, and grateful that I got to work with and got to know hundreds of wonderfully capable, intelligent and dedicated volunteers and staff whom I sincerely thank."

Catherine Karakatsanis, P.Eng., FEC, FCAE

"Industry has difficulty mentoring young engineers so they must be proactive in finding their own mentors and making their own way. Goodwill abounds in the profession and most of those with experience are willing to put knowledge into the piggy bank. If young engineers can seek out the knowledgeable ones they can prosper professionally by absorbing experience from those with it. With such a mobile profession, we rarely get to thank those who directly taught us, but your thanks are implied when you too can later give something back. In the meantime, don't be afraid to ask questions. Be active and don't restrict yourselves to a narrow engineering field—the world needs our expertise in other fields as well."

Denis Dixon, P.Eng., FEC

"Volunteering with PEO is a good way to network with other engineers and develop social, management and organizational skills with the freedom to be creative about your own passion that may not be possible with your employer. At the same time, you give back to PEO and your membership.

"Enthusiasm, creativity and an interest in learning new skills with a positive attitude is essential. As a volunteer, you should take a look at how much time you can commit and take on a role that you can manage within

those constraints without feeling overwhelmed. Achieving success and helping others provides a sense of personal accomplishment as your reward.

"As past chair, I would like to continue to assist the new Kingsway Chapter board members to achieve their goals and ultimately become more autonomous."

Steve Favell, P.Eng., FEC

"I am so honoured to be standing here and be recognized and inducted into the PEO Order of Honour. Coming from an engineering family, being an engineer was not a choice but rather a destiny. I have learned from my father and grandfather that engineering is not just a job; it is more a way of life. I grew up with the notion that to be an engineer is to be a leader in the industry and the community, and the best way to lead is to serve the people who we work with and be a role model for best service.

"I learned that to be a real engineer, I must have ultimate faith in my values, what I believe in and my skills and capabilities. That I should love and enjoy what I am doing, and also with this faith and the love I should never stop giving the opportunity of hope, which is the best gift you can provide to others."

Tom Murad, PhD, P.Eng., FEC

"I didn't come from a family of engineers, so it was all new to me when I became an engineer. I have found something that I am passionate about in this career as a consultant, and that's what volunteering should be to you as well. You should encourage anyone to volunteer to try new things whether they are a four-year-old in junior kindergarten or a teenager trying to find their way in life. Please spend some time with them and find something they like to do and you will enjoy volunteering with them that much more, too. Also, don't forget to try as many new things as you can do when the opportunities arise. You never know where those experiences may lead you."

Andrea Winter, P.Eng., FEC

"The work we perform as PEO volunteers is incredibly important and cannot be underemphasized as it ensures a positive and sound future for this organization. Where it has been said that in the majority of volunteer organizations, 20 per cent of those volunteering do 80 per cent of the work, we as PEO volunteers are definitely in that 20 percentile and especially those of you here tonight."

Greg Merrill, P.Eng., FEC

"It was David Euler who talked me into joining the North Bay Chapter back in 2004 and at that point I had been a P.Eng. for 20 years, but I really had no idea what the local chapter actually did. I soon discovered the great tradition of service to the engineering profession in North Bay and I've enjoyed the last 12 years as a proud volunteer. The balanced combination of professional events promoting the value of the P.Eng. licence and the numerous student outreach initiatives has kept me interested and still does. I'm also very encouraged by the recent influx of young engineers like our past chapter chair, Karin Pratte, and current chapter chair Lindsay Keats. Not only have they helped the old guys like me update our social media presence, but they have successfully introduced EIT events that have resulted in two EITs joining our chapter executive. Great to see fresh ideas flow into the chapter! Thank you again for this recognition, I accept it humbly and with gratitude to all the volunteers who have kept the PEO chapter system vibrant for over 50 years. Thank you."

Doug Lockett, P.Eng., FEC

"My thanks to PEO for this prestigious recognition!

"I would like to thank my fellow Willowdale-Thornhill Chapter executive board members for considering me worthy of nomination for this recognition. Thanks to

Vimbai Munyukwi, the former chair of the chapter, for her lead in completing the nomination effort.

"I have been volunteering for several organizations for over 30 years. My thanks to Dr. Ravi Gupta, a former colleague at Ontario Hydro who, in 1999, inspired me to expand my volunteering efforts to serve on PEO's Experience Requirements Committee, where I continue to actively contribute.

I would like to acknowledge my late mother who worked hard to pave the way for me to become an electrical engineer. She was instrumental in putting the "volunteering bug" in me and inspired me to help those in need.

"I have mentored several EITs and newcomers to Canada through PEO and Skills for Change in their efforts to obtain their P.Eng. licence, and/or find a suitable engineering position in a Canadian workplace. It gives me immense pleasure when my mentee is successful in achieving his or her goal. I must say, it is very satisfying for me to know that, in a small way, I have been a part of someone else's success."

Mohinder Singh Grover, P.Eng., FEC

"In keeping with the theme of the evening, I've been asked when I began volunteering and why I keep doing it today. It started in 2004; I attended a licence presentation ceremony and the chapter at the time displayed various swag, such as T-shirts with the Ottawa Chapter logo. I asked the chair at the time how I could get one of those T-shirts, and he responded, "Why not come to our next meeting and we'll see about getting you one?" So, I attended, and joined the chapter in the spring of 2005, eventually becoming secretary, chair in 2009, and chair of virtually every committee available. As to why I'm still doing it today, the truth is I never received that T-shirt, so I'm waiting until they give me one."

David Grant, P.Eng., FEC

"A huge thank you to the group of volunteers who took the time to write letters on my behalf. It is not easy to find the time to write these recommendations, and probably harder to get them all together. And mostly a very special thank you to my wife Jessica and kids, Fletcher and Drake, who couldn't be here tonight; they've been so supportive of my involvement in PEO over the years.

"I first started volunteering with the Chatham-Kent Chapter in 2004. When I joined, I was very impressed with the different activities that the chapter was providing, and wanted to see how I could help. Volunteering with the chapter has been very rewarding, and I particularly enjoyed our annual impromptu design competition, held each year during National Engineering Month. The Chatham-Kent Chapter is fortunate to have several, very dedicated volunteers who have been the driving force behind our success; without them I would not be here tonight."

Julien Samson, P.Eng., FEC

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LORENA TERE AND RANA TEHRANI YEKTA WIN 2017 G. GORDON M. STERLING ENGINEERING INTERN AWARD

A chemical engineer and a structural engineer—Lorena Tere, EIT, and Rana Tehrani Yekta, EIT, respectively—were joint recipients of the 2017 G. Gordon M. Sterling Engineering Intern Award. The two received the award during PEO's Order of Honour gala on April 21 at the association's annual general meeting weekend in Thunder Bay.

The Sterling Award recognizes engineering interns participating in PEO's Engineering Intern (EIT) program who have demonstrated a commitment to their chosen profession, an interest in assuming leadership responsibilities within it, and a readiness to benefit from a leadership development experience.

A chemical engineering graduate of the University of Toronto and an executive member of PEO's Etobicoke Chapter, Lorena Tere is an engineering intern at Hatch Consultants Ltd., where she is a member of the non-ferrous pyrometallurgy team. "She has illustrated a strong commitment to leadership within the engineering profession through her volunteer work, including co-founding the Etobicoke Chapter EIT subcommittee, developing a new chapter website and several outreach programs," said President George Comrie, P.Eng., FEC, during the awards presentation.

A structural engineering graduate of the University of Waterloo and a member of PEO's Willowdale-Thornhill Chapter, Tehrani Yekta has gained experience as an



Lorena Tere, EIT (left), and Rana Tehrani Yekta, EIT (right), received their award on April 21, 2017.

engineering intern at WSP, a Canadian multinational professional services firm. "There, she demonstrated leadership potential, guiding tasks and assignments at both WSP's structural engineering and building sciences groups. She has also shown strong leadership through volunteer work, including chairing her chapter education committee, serving on PEO's two-day Education Conference Organizing Committee, and leading the University of Waterloo Civil and Environmental Engineering Graduate Association," said Comrie.

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WOOD DECISION NO BLACK EYE FOR ENGINEERING PROFESSION

By Michael Mastromatteo



The acquittal of a former engineer charged in the June 2012 fatal mall collapse in Elliot Lake shouldn't damage the reputation of engineering in the province, say PEO officials.

Former engineer Robert Wood was acquitted June 1 of three charges of criminal negligence after Ontario Court Justice Edward Gareau found there was insufficient evidence to convict Wood of criminal wrongdoing.

The last person to inspect the Algo Centre Mall, Wood described the property as structurally sound just two months before its rooftop parking lot collapsed, killing two Elliot Lake residents.

In delivering his decision, Justice Gareau said Wood had "the last reasonable opportunity" to prevent a disaster at the mall, and that he failed miserably.

"Wood must accept a moral responsibility for what occurred on June 23, 2012 at the mall and undoubtedly the events of that day will follow him throughout the rest of his life," Gareau added. "Wood's engineering work related to the mall, especially in 2012, can fairly be described as shoddy, sloppy and even inadequate. Having said that, in my view, Wood's actions did not reach the level of being criminal."

Wood previously had his engineering licence revoked by PEO in an unrelated matter.

In responding to news of the acquittal, PEO Registrar Gerard McDonald, P.Eng., says Wood's behaviour in the entire Algo Centre Mall matter is not reflective of engineering practice in Canada and that PEO practitioners always hold the public welfare in high regard.

McDonald also says PEO has taken several steps to improve the profession and ensure the public maintains confidence in the work of engineers.

"We hope something is learned from this," McDonald said in interviews with the CBC and other media. "We have taken action to move in that regard. We want to have the public be able to have confidence in engineers and what we do."

PEO officials note that criminal negligence and professional misconduct are subject to different standards of proof. "Wood was found not guilty of criminal negligence in relation to his involvement in the events of Elliot Lake," says Linda Latham, P.Eng., deputy registrar, regulatory compliance at PEO. "It's important to appreciate that professional misconduct, such as negligence as defined in Regulation 941 of the *Professional Engineers Act*, is different than criminal negligence. Criminal negligence involves a much higher standard of proof."

The Ontario Society of Professional Engineers (OSPE), meanwhile, has also weighed in on the acquittal by supporting PEO in affirming its regulatory role and working to implement many of the building safety recommendations contained in the Bélanger Commission report, which reviewed the events leading up to the Algo Centre Mall collapse and rescue effort.

"We encourage action on ongoing continued improvements that will help reinstate the public's confidence in the profession, including the implementation of mandatory continuous professional development for all practising engineers in Ontario, and certification for structural engineers," the OSPE statement reads. "OSPE believes additional resources should be allocated for enforcement of the [professional engineers] act to support proactive follow-up by the regulator and ensure those with suspended licences cannot continue to conduct work under the pretense that they are a qualified engineer."

McDonald suggests the Algo Centre Mall experience could serve as a reminder for engineers to commit themselves to public safety and protection in all their professional endeavours. Engineering regulators can also use the mall collapse as a learning experience.

McDonald says PEO has taken steps to improve the engineering profession by adopting some of the recommendations from the Bélanger inquiry. Chief among these steps is a proposal to the Ontario government for legislative authority to post disciplinary decisions online about its members, so the public can easily access them.

He adds that PEO is undertaking work to develop a standard for the inspection of existing buildings and has also implemented a Practice Evaluation and Knowledge (PEAK) program for its members.



CALL FOR NOMINATIONS

PEO's 2018 ORDER OF HONOUR

The Order of Honour is an honorary society of Professional Engineers Ontario. Its purpose is to recognize and honour those professional engineers and others who have rendered conspicuous service to the engineering profession in Ontario.

The Awards Committee invites members to submit nominations by October 13, 2017 at 4 p.m. For nomination forms and guidelines, visit PEO's website at www.peo.on.ca/index.php/ci_id/2085/la_id/1.htm.

New members of the Order will be invested at a special ceremony at PEO's annual general meeting in Toronto next April.

Nominators should supply complete details on their nominee. Individual statements from each nominator must accompany the nomination.

A complete list of past recipients is available online at www.peo.on.ca.

ENGINEERS CANADA APPOINTS NEW PRESIDENT

By Nicole Axworthy



Russ Kinghorn, P.Eng., FEC, took over as Engineers Canada president May 27.

Long-time member and volunteer of the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) Russ Kinghorn, P.Eng. (BC), FEC, has been appointed Engineers Canada president for the 2017-2018 term.

Kinghorn is a practising mechanical engineer and principal of Kinghorn Systems Engineering, a Cranbrook, BC firm of forest and process industry specialists. He has worked on numerous business planning and consulting projects relating to metals smelting, metallurgical coal production and forest products. He graduated from the University of British Columbia in 1981 with a mechanical engineering degree and also holds an MBA from Simon Fraser University.

As a 20-year volunteer with APEGBC, Kinghorn has served on a number of key committees and task forces, including chairing its Professional Practice and Branch Representative committees and Standards of Practice Improvement Task Force. He has been vice president, president and past president of the APEGBC Council and chair of its Executive Committee, a position in which he oversaw legislative changes to empower Council to secure the financial resources necessary for proper regulation of professional engineering and geosciences practice in the public interest.

Kinghorn has served on the Engineers Canada Board since 2011 and has been active on a number of its committees and task forces. He became president on May 27 at Engineers Canada's annual general meeting in St. John's, Newfoundland.

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OSPE LOOKS TO WIDER ENGAGEMENT OF ENGINEERS FOR 2017 AND BEYOND

By Michael Mastromatteo



OSPE's board of directors for 2017-2018 includes (first row, left to right) Milica Radisic, PhD, P.Eng., Shelly Deitner, P.Eng., Emily Thorn Corthay, P.Eng., Jonathan Hack, P.Eng. (president and chair), Christina Visser, P.Eng., Michael Monette, P.Eng. (past president), and (back row, left to right) Tibor Turi, P.Eng., Matthew Jelavic, P.Eng. (vice chair), Ron Clifton, P.Eng. (treasurer), Jim Chisholm, P.Eng., Réjeanne Aimey, P.Eng. (secretary), and Peter Marcucci, P.Eng.

Long-time volunteer Jonathan Hack, P.Eng., was announced as the new president and chair of the Ontario Society of Professional Engineers (OSPE) on May 4 as part of the advocacy association's annual general meeting in Toronto.

Hack takes over for Michael Monette, P.Eng., in looking to raise OSPE's profile among licensed engineers and the public at large.

A highlight of the annual meeting was OSPE members' approval of two bylaw changes allowing associate members (engineering degree holders yet to obtain the P.Eng.) full voting rights and the ability to serve on the OSPE board of directors.

OSPE officials believe the changes will allow the organization to better engage the entire engineering community and build membership. After 16 years of operation, less than 10 per cent of professional engineers in Ontario have become OSPE members.

In reflecting on its accomplishments of the past year, outgoing President Monette spoke of the need for greater engagement.

"I am encouraged by where the society is headed, making an intentional shift to become a more inclusive organization, which will help us build membership to grow our profession's influence," Monette said. "OSPE is focused on supporting engineers through every stage of their careers—from being a student, to a new graduate and EIT, to a practising engineer, all the way through retirement. OSPE is headed in a direction that will allow us to better serve all our members, setting up this organization for success as we head into the future."

OSPE CEO Sandro Perruzza reiterated the call for more Ontario engineers to get involved in the work of the advocacy association if it is to fulfill its mandate.

"OSPE is headed in the right direction, but to truly amplify the voice of the engineering profession in society it requires the involvement of the entire engineering community in this province," Perruzza said.

He reported that OSPE achieved its four main objectives from 2016, including creating member value, raising awareness, focusing on public policy input, and intensifying community engagement. OSPE's recent "An Engineer was Here" campaign was a high point of its public awareness efforts.

Reza Moridi, Ontario's minister of research, innovation and science, brought greetings from the provincial government and saluted the work of professional engineers in supporting the province's investments in innovation and leading-edge technology.

"We need engineers to play a vital role," Moridi said. "Engineers are the people who create wealth. Your scientific

continued on p. 22



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Reza Moridi, Ontario minister of research, innovation and science, addressed delegates to the May 4 OSPE annual general meeting.

continued from p. 20

background and your practical knowledge and engineering skills help innovation to take place and help build our knowledge-based economy.”

PEO Past President George Comrie, P.Eng., FEC, offered greetings to OSPE on behalf of PEO Council, and voiced his support for OSPE’s efforts to engage more engineers.

“PEO and OSPE are working to perfect our model of working together to bring the best our profession has to offer, both to our members and to the public we serve,” Comrie said.

“But we need to recognize that while anyone can advocate for good public policy, only OSPE can advocate for the self interest of professional engineers. I think we need to turn the volume up, not just with the government but with the public. For our profession to succeed, in terms of public influence, we need OSPE to succeed.”

Other PEO officials attending the 2017 OSPE AGM included PEO Registrar Gerard McDonald, P.Eng., and Council members David Brown, P.Eng., BDS, C.E.T., Thomas Chong, P.Eng., FEC, Danny Chui, P.Eng., FEC, Marilyn Spink, P.Eng., Noubar Takessian, P.Eng., FEC, and Guy Boone, P.Eng.

Other guests included Annette Bergeron, P.Eng., FEC, a PEO director to Engineers Canada, Bob van den Berg, C.E.T., president of the Ontario Association of Certified Engineering Technicians and Technologists, and Marisa Sterling, P.Eng., FEC, president of the Ontario Professional Engineers Foundation for Education.

OSPE’s board of directors for 2017-2018 consists of President and Chair Jonathan Hack, Past President Michael Monette, Vice Chair Matthew Jelavic, P.Eng., Treasurer Ron Clifton, P.Eng., Secretary Réjeanne Aimey, P.Eng., and directors Milica Radisic, PhD, P.Eng., Shelly Deitner, P.Eng., Christina Visser, P.Eng., Emily Thorn Corthay, P.Eng., Tibor Turi, P.Eng., and Jim Chisholm, P.Eng.

ASSOCIATIONS URGED TO EXAMINE EFFECTIVE GOVERNANCE-REGULATION LINKS

By Michael Mastromatteo



Bruce Matthews, P.Eng., former deputy registrar, regulatory compliance, Real Estate Council of Ontario, moderated the May 4 Council on Licensure, Enforcement and Regulation (CLEAR) regional symposium in Toronto.

Successful regulators should recruit leaders who fully appreciate how risk avoidance and effective communication pave the way for more effective regulation.

This was the consensus among delegates and presenters at the May 4 regional symposium of the Council on Licensure, Enforcement and Regulation (CLEAR) in Toronto. The event attracted 75 delegates from more than 20 different regulatory organizations.

The theme of the CLEAR regional symposium was “The proactive regulator—pathways to excellence.”

Bruce Matthews, P.Eng., former deputy registrar, regulatory compliance, Real Estate Council of Ontario (RECO), and former deputy registrar for PEO, was moderator for the day-long session.

Since leaving PEO in 2010, Matthews has maintained his membership in CLEAR and has

developed additional expertise in self-regulatory organizations.

In describing the aims for the day's conference, Matthews said regulatory work is primarily concerned with risk management and preserving an association's reputation for serving the public interest.

Matthews also said regulatory associations should be proactive in their governance efforts and aim well above minimum regulatory standards. "Associations shouldn't be satisfied with being 'good enough,'" Matthews said. "Instead, regulators should be proactive in their progress towards excellence."

The session opened with a presentation on governance excellence by Jan Robinson, registrar and CEO of the College of Veterinarians of Ontario. She suggested governance isn't uniformly understood within the self-regulatory community and that a key part of governance enhancement is finding the right people to serve on council or committees.

"It's important to stay focused on risk and good governance," Robinson said. "Ultimately, good governance underpins good regulation."

She was followed by James Geuzebroek, director of communications for RECO, with a presentation on proactive communication.

Guezebroek outlined RECO's response to a CBC *Marketplace* broadcast highlighting questionable practices on the part of some licensed real estate agents. He cautioned regulators to maintain positive relations with all media and to encourage all licensed members to underscore the public service mandate when responding to media inquiries.

"Emphasizing your organization's core principles will greatly enhance your communications efforts," Guezebroek said.

Michael Salvatori, PhD, CEO and registrar of the Ontario College of Teachers—host organization for the event—later described some of the ways to anticipate and mitigate risk for self-regulators. As the largest self-regulating organization in Ontario, the teachers' college is especially sensitive to serving the public's, rather than members', interests.

CLEAR is a Nicholasville, Kentucky-based organization promoting regulatory excellence. In addition to hosting regional conferences throughout North America, CLEAR organizes an annual educational conference and an international congress, the 2017 version scheduled for November 16 to 17 in Melbourne, Australia.

PEO has been a member of CLEAR for more than 10 years.

STEM AND SKILLED TRADES SEEN AS ALTERNATE PATHWAYS TO FUTURE P.ENG. CAREER

By Michael Mastromatteo



Education Committee volunteer Ravi Peri, P.Eng. (centre), prepares a balsa wood model airplane for takeoff. It was one of the learning exercises carried out as part of PEO's annual Education Conference on June 9 to 10 in Toronto.

PEO's annual Education Conference once again inspired chapter members and volunteers with additional ways engineers can extend their learning and influence within Ontario high schools.

Held June 9 to 10 at PEO headquarters in Toronto, this year's conference included a presentation by Iain McNab, PhD, dean, faculty of applied science and technology, Sheridan College, who outlined the college-level approach to the preparation of future engineers and technologists.

Ontario's community colleges have made strides in the last 10 years offering engineering technology programs that, in some cases, prepare graduates to obtain the equivalent of an engineering undergraduate degree.

McNab told PEO volunteers that the thinking behind the college-level education is preparing graduates for the working world, while the university level aims at teaching graduates how to think analytically. These two approaches are in no way mutually exclusive, McNab said.

The Saturday portion of the two-day conference opened with a demonstration by students from the Scarborough Academy for Technological, Environmental and Computer Education (SATEC) on the use of analytic thinking and innovation to solve a pre-Industrial Revolution transportation problem. The demonstration was led by Bruce McCowan, P.Eng., a teacher at SATEC and a long-time volunteer with PEO's Education Committee (EDU).

EDU volunteers organize the conference every spring to highlight engineering education opportunities, to celebrate the long-standing Engineer-in-Residence (EIR) program, and to draw attention to chapter

success stories in bringing the engineering message to Ontario students.

The committee's work has become more important over the last decade due to the education ministry's emphasis on STEM (science, technology, engineering and math) skills, and over concerns that young women and girls continue to be underrepresented in the wider engineering profession.

In keeping with the STEM and women in technology career concerns, the 2017 conference included a presentation by Gail Smyth, executive director, Skills Ontario, on this provincial agency promoting opportunities for young people to explore careers in the skilled trades and technologies. Smyth reported that Skills Ontario interacted with 650,000 Ontario students last year, and the number is expected to climb as more families consider the skilled trades option.

A portion of the conference was dedicated to a review of PEO's flagship education outreach effort, the EIR program. Alan Ham, an automotive engineering graduate, was joined by other EIR volunteers to describe the latest efforts to recruit new volunteers and spread the influence of the EIR program to new schools. The EIR program is being touted as a simple way for chapter members with an interest in education to volunteer their time and effort.

Murad Hussain, P.Eng., chair of PEO's Scarborough Chapter, later described the chapter's experience with a balsa wood glider contest, an event made possible with assistance from PEO's special funding program.



LEGISLATIVE INTERNS VISIT PEO

The Ontario Legislature Internship Programme (OLIP) interns for 2016 to 2017 visited PEO headquarters on June 2 to learn about the engineering regulator's interaction with the provincial government through its Government Liaison Program. Legislative interns have made it an annual tradition of visiting PEO. Participating in the event were (back row, left to right) Brown & Cohen Account Manager Blake Keidan; interns Stephanie Lowe, Alexander Overton, Sara Gajic, Rachel Nauta, Leslie Muñoz, and Jacob Larocque-Graham; PEO Manager of Government Liaison Programs Jeannette Chau, P.Eng.; PEO Government Relations Consultant Howard Brown; and (front row, left to right) interns Emily Trudeau, Kyle Sholes and Hannah Forsyth.

BITS & PIECES

In June, PEO celebrated its 95th anniversary as the regulator of engineering in Ontario.



WORKSHOP DISCUSSES ACADEMIC PREPARATION OF FUTURE PRACTITIONERS

By Michael Mastromatteo



A number of PEO Council members, including President Bob Dony, PhD, P.Eng., FEC (back row, ninth from right), attended the May 29 PEO-CODE education workshop at McMaster University in Hamilton.

PEO continues to gain insights into the expectations of engineering educators as the profession looks to prepare the next generation of practitioners.

A May 29 workshop, organized by PEO and the Council of Ontario Deans of Engineering (CODE), attracted more than 40 engineering educators and other guests to an examination of current and future engineering academic requirements.

Hosted by McMaster University in Hamilton, the day-long event opened with a review of PEO's academic requirements for licensure by Michael Price, P.Eng., the regulator's deputy registrar, licensing and registration.

Later, Andy Hrymak, PhD, P.Eng., dean of engineering at Western University, outlined some of the latest trends in the accreditation of engineering curricula at the undergraduate level. Among the latest concerns for those evaluating the currency of engineering education in Canada is the emphasis on "graduate outcomes," student-centred learning, faculty competency and the importance of international experience in the overall preparation of future candidates for licensure.

PEO President Bob Dony, PhD, P.Eng., FEC, one of the drivers of the workshop, said it's key for regulators to have more face-to-face exposure to engineering education to consider curriculum and accreditation processes.

"I was very pleased with the open discussion between us as a regulator and the various educational institutions," Dony said after the workshop. "I think both groups came away with a much clearer picture of the other's perspectives: PEO has a better idea of the current issues facing engineering educators and educators have a better understanding

of the regulatory framework and obligations PEO faces for the academic requirements for licensure."

Other engineering deans presenting at the workshop included Tom Duever, PhD, P.Eng., of Ryerson University, and Ishwar Puri, PhD, LEL, of McMaster University.

In an interview with *Engineering Dimensions*, Puri said it's important to all stakeholders in the engineering community to meet and reflect on issues affecting the preparation of the next round of practitioners.

"We must ensure regulators and higher education institutions discuss this regularly to move the profession forward," Puri said. "Today's engineers must possess a wide range of knowledge and skills, both technical and interpersonal. The future demands engineers who can conduct effective problem analysis, complex investigations and designs, and use engineering tools. Engineers must also be able to work in teams, have superior communication skills and professionalism, understand the impact of engineering on society and the environment, and foster ethics and equity."

CONSULTING ENGINEERS LOOK TO BOOST OUTREACH TO VOLUNTEERS

By Michael Mastromatteo



CEO's new chair is Rex Meadley, P.Eng., of C.C. Tatham and Associates Ltd.



PEO Registrar Gerard McDonald, P.Eng., brought greetings from the regulator to Ontario's consulting engineering representatives.



Terry Bennett of Autodesk Inc. was guest speaker at the 2017 CEO annual general meeting.

Rex Meadley, P.Eng., president of C.C. Tatham and Associates Ltd., is the new chair of Consulting Engineers of Ontario (CEO), the 190-member association promoting a sustainable business environment for the province's consulting engineering firms.

Meadley, the 43rd chair of CEO, took over from outgoing chair Peter Mallory, P.Eng., of CH2M Hill Canada June 15 at CEO's annual general meeting at the Royal Military Institute in Toronto.

Meadley takes over an organization looking to step up engagement with members and volunteers while moving forward with its ongoing government relations and advocacy work.

CEO officials are also committed to helping member firms deal with "unfair procurement and contract language" in their dealings with clients, and to respond to member concerns in a more timely fashion.

The annual meeting included a presentation on infrastructure and accelerated engineering and fabrication design by Terry Bennett, senior industry strategist, civil infrastructure, with Autodesk Inc., a US-based organization offering 3-D engineering and design software.

Bennett outlined the rise of building information modelling (BIM) as a disruptive technology that is making an enormous impact on consulting engineers and their work with civil projects. BIM is described as a 3-D model-based process giving engineers and architects a digital description of every aspect of a built asset.

The huge advances in digital modelling, Bennett said, is a game-changer not only in the selection and design of infrastructure projects but also in their management, cost, construction and delivery.

Other guests at the 2017 CEO meeting included PEO Registrar Gerard McDonald, P.Eng., OSPE President and Chair Jonathan Hack, P.Eng., and John Gamble, P.Eng., C.E.T., president and CEO of the Association of Consulting Engineering Companies (ACEC) Canada.

In a message to all member firms, consulting engineers' CEO Barry Steinberg, P.Eng., said the upcoming year will see CEO focus on volunteer-supported activity. The organization has hired a membership and volunteer engagement specialist to help recruit new volunteers to manage committee and chapter activities.

"We need results-driven individuals with a positive attitude," Steinberg said. "I strongly encourage all members to explore CEO's volunteer opportunities and get involved."

CEO's board of directors for 2017-2018 now includes Rex Meadley, P.Eng. (chair), Jeremy Carkner, P.Eng. (chair elect), Peter Mallory, P.Eng. (past chair), Bill Allison, P.Eng. (secretary), and Christine Hill, P.Eng. (treasurer).



July 2017

JULY 17-18
 International Conference on Graphene & Semiconductors, Chicago, IL
graphene.conferenceseries.com



JULY 24-26
 Unconventional Resources Technology Conference, Austin, TX
urtec.org/2017



JULY 24-27
 Novel Optical Materials & Applications Conference, New Orleans, LA
www.osa.org

AUGUST 6-9
 International Design Engineering Technical Conferences & Computers & Information in Engineering Conference, Cleveland, OH
www.asme.org/events/idetccie



AUGUST 6-9
 ASCE Pipelines 2017 Conference, Phoenix, AZ
www.pipelinesconference.org

August 2017

AUGUST 6-10
 SPIE Optics & Photonics 2017, San Diego, CA
spie.org/conferences-and-exhibitions/optics-and-photonics



AUGUST 8-10
 4th International Conference on Transportation Information & Safety, Banff, AB
csce.ca



AUGUST 27-30
 International Conference on Highway Pavements & Airfield Technology, Philadelphia, PA
www.pavementsconference.org



AUGUST 27-31
 International Conference on Nanochannels, Microchannels & Minichannels, Cambridge, MA
www.asme.org/events/icnmm



AUGUST 29-31
 International Low Impact Development Conference, Portland, ME
www.lidconference.org



September 2017

SEPTEMBER 10-13
 ASCE Congress on Technical Advancement, Duluth, MN
www.asce-cta.org

SEPTEMBER 18-20
 Commercial Vehicle Engineering Congress, Rosemont, IL
www.sae.org/events/cve



SEPTEMBER 18-22
 Resilience Week 2017, Wilmington, DE
www.resilienceweek.com

SEPTEMBER 18-20
 Conference on Smart Materials, Adaptive Structures & Intelligent Systems, Snowbird, UT
www.asme.org/events/smasis



SEPTEMBER 19-23
 2017 International Association for Bridge & Structural Engineering Symposium, Vancouver, BC
www.iabse.org

CHANGING DEMOGRAPHICS

AN OPPORTUNITY NOT TO BE MISSED

Future practitioners are key to new president's vision of a more inclusive, nimble and sophisticated regulatory regime.

By Michael Mastromatteo





The Ontario engineering regulator's newest president is optimistic the profession can chart a course for a more inclusive and diverse membership, while better accommodating the next generation of practitioners.

Bob Dony, PhD, P.Eng., FEC, took over the reigns from outgoing president George Comrie, P.Eng., FEC, on April 22 at PEO's annual general meeting in Thunder Bay. The new president is as unassuming as he is determined to embrace a culture of change in helping a new cohort of engineering graduates make their mark on a rapidly evolving profession.

It's understandable that Dony, a life-long academic, would focus on engineering education as a hallmark of his volunteer work at PEO. Dony comes to the president's office after more than 20 years as a PEO volunteer. Since 1997, he has served on the faculty of engineering at the University of Guelph, and he is now on a research and study break from the university as he serves his term as PEO president.

Dony obtained his P.Eng. in 1989 and was shortly thereafter encouraged by former PEO president Walter Bilanski, PhD, P.Eng., FEC, to become involved with the regulator's Emerging Disciplines Task Force. He has since served as a member and chair of both the Academic Requirements and Legislation committees, where he developed an even greater appreciation for some of the core objects of PEO's regulatory and licensing mandate. In 2012, he was first elected to PEO Council as a councillor-at-large.

In some ways, the Dony family experience is akin to an engineering incubator. Dony's father, Bill, a former employee with Ontario Hydro's research division, was one of the founding members of the Ontario Association of Certified Engineering Technicians and Technologists (OACETT), which for 55 years has served as a valued partner in the engineering-technologist working relationship.

"It was my father's job at Ontario Hydro to make sure the engineers' designs work," Dony reflected recently. "It was an early example for me that teams of professionals have to come together to find success in a technical environment."

The Dony clan's history as an engineering test lab is extended by the current president's immediate family experience. After graduating with a master's degree from the University of Waterloo in systems design engineering in 1988—and becoming licensed by PEO three years later—Dony began his career with Imaging Research Inc. in St. Catharines.

He and his wife Lisa raised a family of two sons and a daughter, all three of whom have followed their father into the engineering profession. The oldest, daughter Lynn Dony, EIT,



The late Bill Dony, C.E.T., was a founding member of the Ontario Association of Certified Engineering Technicians and Technologists (OACETT) and an early influence on son Bob's career choice.

President Bob Dony (second from left) and his wife Lisa (middle) raised two sons and a daughter, all of whom followed Dony into the engineering profession: engineering student Greg (far left), Lynn, EIT (second from right), and John, EIT (far right).

is involved with autonomous vehicle development with General Motors at their new facility in Oshawa. She will soon move to a newer facility in Markham. Next is John Dony, EIT, who recently began work at GHD, an environmental engineering firm in Waterloo. The youngest Dony, Greg, has just finished his third year of studies at Western University and is registered with PEO as a student member.

The entire Dony family formed a cheering squad of sorts at the Thunder Bay annual general meeting, as the elder Dony accepted the ceremonial gavel of leadership from Past President Comrie.

Dony is understandably proud of his three adult children. He says he didn't urge them into engineering pursuits, but left it up to them to serve the public good by way of any profession.

"Our dad never pushed engineering as a career growing up," Lynn Dony told *Engineering Dimensions*. "We saw firsthand through both

ARMED WITH FAMILY EXPERIENCE AND NOW 20 YEARS' SERVICE AS A MEMBER OF THE FACULTY AT THE UNIVERSITY OF GUELPH'S SCHOOL OF ENGINEERING, DONY IS WELL POSITIONED TO CITE EDUCATION AND CURRICULUM ENHANCEMENT AS KEY POINTS OF HIS LEADERSHIP AT PEO.

our mom, who is a graduate of math at the University of Waterloo and a computer programmer, and our dad about successful careers in math and engineering. We always got support for bringing home design-and-build projects, and we were all good at math and science in school. It's not a surprise that we're all engineers, but there was never explicit pressure to enter it."

Lynn Dony studied biomedical and electrical engineering at McMaster University and graduated in 2012, and is completing the master of engineering program at the University of Guelph. "I chose these programs because I was drawn to the ability to help people through engineering," she adds. "Throughout my edu-

cation and career, I've always been drawn to projects that have a positive impact on society, and I think that seeing my dad's career influenced those decisions. His views on the future of engineering, especially in an academic sense, and its need to adapt to our new problems I'm sure has had a huge impact on our career paths. He has continuously emphasized making things better, learning new skills, and making data-driven decisions, even if that meant disrupting the way things have always been done."



Dony teaches students at the University of Guelph's School of Engineering. His emphasis on the future of the profession is a direct result of his full-time job as an engineering professor. He is determined to help the next generation of practitioners make their mark on a rapidly evolving profession.



Dony's research interests involve spending time in the university's sound booth, where he tests out algorithms for audio signal processing. His main application for this work is developing new noise reduction methods for hearing aids, among other applications.

ACCREDITATION CONCERNS

Armed with family experience and now 20 years' service as a member of the faculty at the University of Guelph's School of Engineering, Dony is well positioned to cite education and curriculum enhancement as key points of his leadership at PEO. Dony also has several years' experience as an Ontario representative to Engineers Canada's Canadian Engineering Accreditation Board (CEAB), which reviews engineering undergraduate programs and certifies new degree programs.

To help realize his educational priorities, Dony already convened a seminar with the Council of Ontario Deans of Engineering (CODE) in May to review accreditation and curriculum issues across the province's engineering undergraduate community (see p. 25).

"Since we, as a regulator, effectively use the accreditation product of Engineers Canada and the CEAB, I felt it's important for us to have a conversation with the deans, and I know full well by observing in the classroom that it's not the same classroom I went through," the new PEO president says. "So how can we make sure we maintain the same standards for engineering education (and) allow it to evolve to the reality of today?"

It's in keeping with the new president's views that engineering education, due to

Dony, seen here in his office at the university, is fully supportive of welcoming new leaders into the profession by way of PEO's recent term limits and succession planning initiatives. He says it is key to make sure fresh perspectives are brought into the organization.

emerging disciplines and other trends, cannot afford to stand pat. "[Engineering education] certainly is different than the one I entered when I graduated in 1986 with my degree in systems design engineering," Dony wrote in his first President's Message column ("Moving forward in a host of ways," *Engineering Dimensions*, May/June 2017, p. 6). "At that time, such a non-traditional program was very much the exception to the classical engineering disciplines of the day. Today, there are more than 100 differently named engineering programs in Canada that have been accredited by the CEAB. The old framework of discrete engineering disciplines is now simply obsolete."

Dony recognizes the irony in being an advocate for diversity and inclusiveness in the engineering profession as a white, middle-aged male practitioner. He made note of the situation in his annual meeting comments.

"While we are encouraging new voices to enter the conversation, we must make sure it is a diverse set that reflects not just our profession, but society as a whole," he told AGM delegates. "I am a middle-aged, white, cis-gendered straight male. I'm hardly a poster boy for such a diverse conversation. But this isn't a 'women's issue' or a 'minority issue'—this is an issue that we all must take ownership in, especially those of us in that median demographic that I am so visibly a member of."

AS A COMPLEMENT TO HIS DIVERSITY AND INCLUSIVITY EXPECTATIONS, DONY IS FULLY SUPPORTIVE OF THE ENGINEERING REGULATOR'S RECENT TERM LIMITS AND SUCCESSION PLANNING INITIATIVES.



To that end, Dony supports the Engineers Canada "30 by 30" initiative, which aims to raise the percentage of newly licensed female engineers to 30 per cent by the year 2030. In recent years that figure has hovered around the 10 per cent mark.

Furthermore, Dony hopes PEO Council and its pool of volunteers will also become more reflective of society in general. "If we're not reflecting the society that we are working on behalf of, it's very hard to claim legitimacy to the people of Ontario," Dony told *Engineering Dimensions*.

WELCOMING NEW LEADERS

As a complement to his diversity and inclusivity expectations, Dony is fully supportive of the engineering regulator's recent term limits and succession planning initiatives. While these studies will be presented to PEO Council in more detail over the summer, Dony believes it's incumbent on publicly-focused organizations like PEO to provide leadership development opportunities to members and volunteers.

"None of us are that important to the organization that if we are not part of it, it will come crashing down," Dony says as justification for leadership recruitment work. "We all have our contributions to make, but we can build in some things that help create opportunities for people—and that's what the succession planning and term

limits team is doing. It provides opportunities—by statute there is a vacancy created—which in turn provides an opportunity to somebody who may not have thought of it before.”

But while Dony is clearly focusing on education, leadership development and diversity as priorities for his presidential term, he is also attuned to regulatory refinement. His time as chair of the Legislation Committee, it seems, has left him with a keen appreciation of PEO’s very *raison d’être*. “That work puts into perspective our regulatory responsibilities,” Dony affirms. “That’s the reason we exist—we exist because of the *Professional Engineers Act*, and we are here to serve the public. The question remains: How do we do that in the best possible way?”

The Legislation Committee experience, in turn, has helped the new president understand the provincial government’s emphasis on evidence-based policy-making, especially as it comes to PEO looking to make future changes to the engineering act or its regulation-making ability. “As engineers, we should normally espouse evidence-based policy,” Dony says. “Today, we have to deliberately make the case for change, so it puts the onus on us to make sure we are deliberate with changes as we go forward, because sometimes in the past, we weren’t as deliberate.”

The new president is also concerned about the increasing government scrutiny on all self-regulating professions and on the constant expectations that associations operate with transparency and accountability. “I don’t want PEO to ever be in a position where we have to explain ourselves after the fact to the government,” Dony says. “I would like to be in a position where we are on the forefront.”

He takes some comfort for the expeditious way PEO has accommodated internationally educated applicants, but he cautions PEO against resting on its administrative laurels.

When Dony decided to run for president-elect in 2015, he spoke in his campaign material about the engineering profession at a crossroads. He suggested at the time that improved regulation is thwarted by “recycling” of issues not properly dealt with, and that problems around lack of engagement and low member interest in electoral matters continue to beset the regulator.



Dony, here with students in one of the labs at the University of Guelph, believes engineering educators should continue to have room to innovate and meet the challenges of today’s professional environment while also maintaining the technical rigour PEO requires as a regulator.

Nonetheless, Dony appears confident the profession retains the talent and commitment to move forward. In his annual meeting remarks, Dony emphasized “the collective wisdom” of the profession and its practitioners to make progress in overcoming stubborn obstacles. It’s evident he also reserves a special place for the next round of practitioners, including those still completing their education, to make a difference in the future. “As a self-governing profession with over 1000 volunteers across the province, I look forward to ‘crowd sourcing’ a path together to move this great profession of ours forward for the next generation of practitioners.” **e**

A stack of colorful folders and books is shown on the left side of the page. The top folder is blue, followed by a green one, and then a stack of books with white, black, and red covers. The background is a plain, light-colored surface.

PEO PRACTICE ADVISORY GROUP fine-tuning crucial information delivery service

BY MICHAEL MASTROMATTEO

The regulator's standards and guidelines development team has stepped up efforts not only to provide more professional practice information but also to learn how this service is being fully utilized by the membership.

ALTHOUGH IT MIGHT lack the pizzazz of Dear Abby columns, PEO's practice advisory service continues to find ways to raise its profile and value to Ontario's engineering community. Practice guidelines and related published information have always been an important resource the regulator provides to members in search of information on various areas of practice.

However, as regulators of all stripes are continually challenged to prove their value to government overseers and the public, it's crucial that all information sought by licensees is accessible, readily understood and, above all, put into practice.

Traditionally, information flows to members by way of published performance standards, practice guidelines and occasional bulletins. These are produced in conjunction with other frontline resources for practitioners, including telephone hotlines and website links that put members in touch with practice experts.

As the administrator of a self-regulating profession, PEO is responsible for regulating the practice of professional engineering by ensuring practitioners conform to generally recognized norms of practice. Naturally, this includes serving as the go-to place for member questions about professional practice, licensing or related regulatory matters.

It's accepted that practitioner adherence to quality standards for professional services plays an important part in shaping both the role and the image of the profession.

To ensure this is done, the *Professional Engineers Act* (PEA) gives PEO Council the authority to establish, develop and maintain standards of practice that must be followed by all practitioners. Practitioners also benefit by regarding performance standards and practice guidelines as benchmarks that help them determine the proper level of service they need to provide.

Some 10 years ago, however, PEO began paying more attention to guidelines and standards

development for practitioners. At its January 2007 Council meeting, PEO approved definitions for practice and performance standards to be used as the basis for future development of professional standards. Council at the time also approved a professional standards policy to cover the development, implementation and monitoring of practice and performance standards. In a key administrative move, the new policy required that PEO practice and performance standards be incorporated in regulations.

The policy instructed PEO's Professional Standards Committee (PSC), the committee responsible for developing practice standards and guidelines, to create regulations prescribing standards of practice and standards of performance that provide explicit instructions to practitioners and the public about mandatory professional responsibilities.

In some ways, this development was "not a moment too soon." At the time, PEO's director of policy and professional affairs, Bernard Ennis, P.Eng., wrote in *Engineering Dimensions*: "In the 23 years since the PEA came into force, not a single professional standard has been created (e.g. between 1984 and 2007)."

The new policy set two types of standards mentioned in the engineers act: performance standards (outcomes of a task) and practice standards (specific list of subtasks necessary to complete the task successfully).

As Ennis noted in early 2008, standards are not step-by-step manuals. Rather, they provide goals to aim for but leave judgment in the hands of the practitioner. Standards are intended only to ensure that practitioners are clearly informed of the obligations and responsibilities associated with specific tasks.

With the new policy and regulations in place, since 2008 PEO has been working to overcome a dearth in standards development work.



STANDARDS AS REGULATION

The first performance standards to emerge are those that are part of Ontario Regulation 260/08, which covered building construction and demolition. In keeping with the aim of emphasizing performance and service considerations over technical matters, the standards outline certain tasks licence holders must complete when involved in construction or demolition projects.

PEO's performance standards and guidelines work was given more urgency by 2012 in the wake of the Algo Centre Mall collapse in Elliot Lake, Ontario, a case that only recently ended with former engineer Robert Wood being acquitted on charges of criminal negligence causing death (see p. 17). Although under licence suspension at the time, Wood was the last person to assess the Algo Centre Mall before its sudden collapse, which killed two Elliot Lake residents and caused severe economic disruption throughout the entire community.

The Elliot Lake incident and subsequent inquiry revealed, among other things, that PEO had few resources to offer in the building design and inspection sector, particularly with respect to structural condition assessments of existing buildings. In response, PEO recommended creation of performance standards and practice guidelines for practitioners in this crucial area of public safety and protection. One of PEO's recommendations was subsequently adopted by Elliot Lake Inquiry Commissioner Paul Bélanger in his final report.

PEO's practice advisory group received a flurry of calls and questions from practitioners in the wake of the Algo Centre Mall collapse. Many inquired about their obligations in doing various building assessment work. PEO responded in part in November 2012 with the release of practice bulletins dealing with structural engineering assessments of existing buildings.

PEO's practice bulletins are like practice guidelines but are developed for urgent issues or where a short document shelf-life is expected. Bulletins are also used for interpretations or supplements to more detailed guidelines. Customarily, bulletins are incorporated into guidelines at the earliest opportunity.

Concerns over structural engineering culminated in one sense with this year's completion of the 32-page *Structural Engineering Design Services for Buildings Guideline*. This is the first of PEO's fully redesigned guidelines that the regulator believes will create more buzz in the engineering community and, in turn, encourage members to use the information imparted.

But there is more involved here than making guidelines more attractive and reader-friendly.



The *Structural Engineering Design Services for Buildings Guideline* (above) is the first of the new-look publications produced by PEO's Professional Standards Committee. The guideline was designed in-house by PEO's communications team.

The effort reflects the PSC's stepped-up interest in surveying the practice landscape, making note of the most pressing concerns and, in turn, providing the most relevant information. With the hiring of Standards and Practice Manager José Vera, P.Eng., MEPP, and Standards and Guidelines Development Coordinator Sherin Khalil, P.Eng., for the last few years PEO has devoted additional resources to provide more timely practice information to licence holders.

Accompanying the information-delivery efforts is a recent study by PEO's policy team on the effectiveness of existing printed guidelines and how they are being used by practitioners.

As PEO Policy Manager Jordan Max asked members in late 2015: "When do you contact PEO for practice advice? Why (or why not)? How useful are professional practice bulletins, guidelines or standards in helping you improve your practice or integrate new expectations? What other issues, questions, products, services or formats could also be helpful?"

Max described PEO's first-ever practitioner-centred research study, or PCR, as a "deep dive" effort to examine and better understand professional engineering practice in Ontario from the licence holder's point of view.

HEARING FROM PRACTITIONERS

Over the course of the study, volunteer participants offered PEO details about what goes on in professional practice. The idea is to allow the regulator to better determine what public safety risks might exist, where such risks might emerge, which professional practice elements still need to be regulated, and which could be regulated in a different way.

The PCR also invited participants to report the kinds of activity that influence practice behaviour and how practitioners interact with the regulator on professional practice issues.

An important element of the PCR also focuses on the effectiveness of communications efforts—including bulletins, standards and guidelines—and how effective these are in imparting practice information.

Although the results of the PCR are still being analyzed, a few issues have already come to the fore. As Vera notes: "We know little of how members are using the guidelines. The project will use those findings and insights to redesign our professional affairs instruments and services for greater effectiveness and provide mechanisms that will ensure they continue to be effective."

One of the preliminary findings is that practice guidelines could be made more attractive and

readable by adopting a new design and content style. "The new guideline format idea originated from a survey in the PCR," Vera says. "In brief, there were comments that the practice guidelines could have a more readable, user-friendly format."

More concerning perhaps is evidence from the review that while about 75 per cent of PEO members are aware of the guidelines, practitioners have not been making much use of them. "Therefore, as a starting point, we want to find out who is using our guidelines and how they are using them," Vera says.

The first fully redesigned guideline, *Structural Engineering Design Services for Buildings Guideline*, was released earlier this year. A second redesigned guideline, *Structural Condition Assessments of Existing Buildings and Designated Structures Guideline*, is scheduled for release sometime this summer.

For years, the guidelines were produced and distributed in leaflet form. Paper copies are still available at PEO headquarters; however, electronic versions of guidelines have become the norm.

The guideline-and-standard production effort operates alongside an active professional practice telephone hotline that responds to an average of 600 inquiries per year from licence holders and members of the public.

The team has also completed a Practice Advice Resources and Guidelines web page on PEO's website (www.peo.on.ca/index.php?ci_id=30387&la_id=1), which is akin to an electronic almanac of practice information. In addition to the full contents of available practice guidelines, practice bulletins and performance standards, the web page includes practice-related articles that have appeared in *Engineering Dimensions*. The page also contains staff contacts, presentations staff have made on practice issues, and a section on common practice advice topics.

Three of the most common topics on the page are use of the professional engineer's seal, ethical concerns surrounding conflict of interest and an engineer's duty to report, and guidance on the professionally acceptable manner to review the work of another licence holder.

In discussing the role of the standards and guidelines development team, it's important to understand its full jurisdiction. While practice matters are fair game for providing information, the team is not permitted to advise or offer opinion on employment or technical questions, contract conditions or on an individual practitioner's recommendations. As well, the PSC group cannot offer engineering opinion on any project or situation.

What's more, PEO's practice advisory team cannot provide legal advice, and the guidance provided by staff does not constitute such advice. Instead, licence holders should consult with a legal advisor on specific, factual situations. Practice advice offered by PEO is provided on a general basis and does not apply to all case-specific situations nor does it replace professional judgment.

Licence holders are responsible for their own actions and remain accountable for their decisions. PEO's practice advisory team welcomes questions from licence holders on professional practice issues and their responsibilities under the PEA.

If practitioners still have practice questions after having reviewed the guidelines, they can still contact the PEO practice advisory team at practice-standards@peo.on.ca. **e**

HOW TO HOST A SUCCESSFUL TAKE YOUR MPP TO WORK DAY

By Howard Brown and Blake Keidan

The 2017 changes to Ontario political fundraising laws have impacted PEO's opportunities to meet with MPPs. New legislation banned MPPs from attending their own fundraisers as well as receiving corporate, association or union donations.

We discussed in our March column ("A new approach to engagement," *Engineering Dimensions*, March/April 2017, p. 32) how PEO activities such as the Government Liaison Program (GLP) academies and congresses or licence presentation ceremonies are now even more fundamental to PEO's successful relationships with MPPs.

Let's look at the Take Your MPP to Work Days. Since 2013, PEO has hosted almost two dozen MPPs at these events (see sidebar, p. 40).

Sophie Kiwala, MPP (Kingston and the Islands), then parliamentary assistant to the minister of tourism, culture and sport, participated in a Take Your MPP to Work Day on March 13, 2015. Two weeks later, she stood up in the legislature and said the following about her experience:

"Mr. Speaker, I rise to acknowledge our province's world-class engineers. Recently, I was asked by Professional

Engineers Ontario to take part in their Take Your MPP to Work program. The good work done by our diligent engineers largely takes place behind the scenes, but one major aspect of their work—safety—affects us all every day. I commend PEO for their leadership in developing standards that prioritize the safety of Ontarians and, furthermore, I would like to recognize them for encouraging female participation in engineering."

Indira Naidoo-Harris, MPP (Halton), then associate finance minister, attended the first-ever joint Take Your MPP to Work Day hosted by PEO's Oakville and Mississauga chapters on July 20, 2016. Afterwards, she put her comments very succinctly: "This is the best event PEO does!"

Since the theme of this issue of *Engineering Dimensions* is practice guidelines, we thought we would provide PEO members with a short guideline on how to host a Take Your MPP to Work Day.



Jeff Yurek, MPP (Elgin-Middlesex-London), PC health critic (fourth from left), attended the London Chapter's third Take Your MPP to Work Day on August 23, 2016. Participating were (left to right) PEO London Chapter Past Chair Oscar Avila, P.Eng.; London Chapter GLP Chair Tomiwa Olukiyesi, P.Eng.; London Chapter Chair Imtiaz Shah, P.Eng.; Government Liaison Committee (GLC) Chair Darla Campbell, P.Eng.; Ontario Society of Professional Engineers' Policy Analyst Patrick Sackville; and London Chapter members Julian Novick, P.Eng., Remona Johnson, P.Eng., Luke Seewald P.Eng., Kevin Spicer, P.Eng., and Matt Miedema, P.Eng.

PEO TAKE YOUR MPP TO WORK DAY GUIDELINE 2017

STAGE 1: WHERE AND WHEN

Select a host company:

- First you must pick an engineering company or other organization that employs professional engineers in your MPP's constituency and contact them about hosting.
- To demonstrate the work done by engineers, the visit can consist of a presentation, facility tour, meet-and-greet, lunch, etc.

You can host the event whenever the schedule permits, however, Fridays are constituent days and MPPs are more likely to be available for events in their constituency.

STAGE 2: WHO

Identify which MPP you would like to invite. Most PEO chapters border on several ridings. You can find out your electoral district by visiting the Elections Ontario website (www.elections.on.ca) or using their app (<https://www3.elections.on.ca/internetapp/fyed.aspx>).

STAGE 3: CONFIRM KEY MESSAGES

There are three key messages that need to be expressed:

1. PEO has a legislative mandate under the *Professional Engineers Act* to regulate the practice of professional engineering in the public interest;
2. The self-regulating engineering profession in Ontario—comprising over 85,000 licence and certificate holders—has been successfully serving and protecting the public for 95 years; and
3. PEO has unique knowledge and expertise, and it is in the best interest of government to consult with PEO before considering new policy directions that may have the potential to impact the regulation of the practice of professional engineering.

STAGE 4: PLAN EVENT AGENDA

Although it is called a day, most visits are two hours!

These events are intended to bring together MPPs and professional engineers so the MPPs can learn more about engineers and the important work they do in order that the public interest may be served and protected, and bring awareness of the role of PEO.

If your chapter decides to host a Take Your MPP to Work Day there are three main goals to keep in mind:

1. Increase MPPs' understanding of the regulatory role of PEO;
2. Develop relationships between MPPs and local engineers and PEO chapters; and
3. Help foster a better understanding of engineering work among MPPs.

While you want to get as much information across to the MPP, you don't want to overwhelm them:

- Tours should be around 30 minutes and should focus on high concepts, and the value that has for the public;
- PowerPoint presentations should be no longer than 15 minutes and should have minimal text on screen; and
- Share real-life stories and anecdotes to make the whole experience more engaging.

STAGE 5: HOST EVENT

- Have alternative activities planned in case a tour activity is no longer available;
- Have a rain date planned in case the MPP has to reschedule;
- Take lots of photos;
- Take notes on the event, attendees, MPP's comments/questions, etc.; and
- Coordinate a thank-you gift from PEO.

STAGE 6: FOLLOW UP

Send a follow-up email to the MPP and their staff:

- Be appreciative of the meeting;
- Summarize what you discussed to demonstrate you listened;
- Include any documents you discussed or mentioned; and
- Clarify next steps/future meetings.

If your chapter is interested in hosting a Take Your MPP to Work Day in 2017, contact Jeannette Chau, PEO manager of government liaison programs, at jchau@peo.on.ca. [e](#)

[Howard Brown is president of Brown & Cohen Communications and Public Affairs, and PEO's government relations consultant. Blake Keidan is account executive at Brown & Cohen Communications and Public Affairs, and PEO's government relations coordinator.](#)

MPPs GO TO WORK

Curious about who has participated in PEO's Take Your MPP to Work Day? Below is the full list of participants since the program began in 2013.

2013

Cindy Forster, MPP (Welland), then NDP municipal affairs and housing critic, visited Niagara College with PEO's Niagara Chapter.

Kevin Flynn, MPP (Oakville), then parliamentary assistant to the minister of transportation, visited Siemens Canada with the Oakville Chapter.

2014

Mike Colle, MPP (Eglinton-Lawrence), then parliamentary assistant to the minister of transportation, visited Toronto Rehabilitation Institute with the West Toronto Chapter.

Bob Bailey, MPP (Sarnia-Lambton), then PC natural resources critic, visited Shell Canada's refinery facility in Sarnia with the Lambton Chapter.

2015

Teresa Armstrong, MPP (London-Fanshawe), then NDP citizenship, immigration and international trade and seniors' affairs critic, visited the Upper Thames Valley Conservation Authority with the London Chapter.

Sophie Kiwala, MPP (Kingston and the Islands), then parliamentary assistant to the minister of tourism, culture and sport, visited Bombardier on March 13 with the Kingston Chapter.

Arthur Potts, MPP (Beaches-East York), then parliamentary assistant to the minister of agriculture, food and rural affairs, visited a City of Toronto water treatment plant with the East Toronto Chapter.

Indira Naidoo-Harris, MPP (Halton), then parliamentary assistant to the minister of health and long-term care, visited Siemens Canada with the Oakville Chapter.

Yvan Baker, MPP (Etobicoke Centre), then parliamentary assistant to the president of the Treasury Board, visited KINETRICS with the Etobicoke Chapter. Baker also visited Acuren Group with the chapter.

France G linas, MPP (Nickel Belt), then NDP aboriginal affairs, francophone affairs, health and long-term care critic, visited SNOLAB with the Sudbury Chapter.

2016

Peggy Sattler, MPP (London West), then NDP women's issues, training, colleges, universities, research and innovation critic, and **Teresa Armstrong** visited 3M with the London Chapter.

Lisa Gretzky, MPP (Windsor West), then NDP education critic, visited Stantec Consulting with the Windsor Chapter.

Labour Minister **Kevin Flynn, MPP (Oakville)**, **Indira Naidoo-Harris** and **Amrit Mangat, MPP (Mississauga-Brampton South)**, then parliamentary assistant to the minister responsible for women's issues and to the minister responsible for accessibility, visited Credit Valley Conservation Authority with the Oakville and Mississauga chapters.



Lisa Thompson, MPP (Huron-Bruce), PC international trade, indigenous relations and reconciliation critic (centre), participated in a Take Your MPP to Work Day hosted by PEO Georgian Bay Chapter on February 6. With her in the photo are (left to right) Price Schonstrom, General Manager Rance Tupling, P.Eng., President Rich Grubb, P.Eng., PEO Georgian Bay Chapter GLP Chair Arjan Arenja, P.Eng., and chapter GLP subcommittee volunteer Glenn Sutton, P.Eng.

Gila Martow, MPP (Thornhill), PC francophone affairs, anti-racism secretariat and GTA issues critic, visited the Bill Fisch Forest Stewardship and Education Centre in Whitchurch-Stouffville with the York and Willowdale-Thornhill chapters.

Jeff Yurek, MPP (Elgin-Middlesex-London), PC health critic, visited Presstran Industries with the London Chapter.

Bill Walker, MPP (Bruce-Grey-Owen Sound), PC critic for long-term care, visited Tenneco's Owen Sound Operation with the Georgian Bay Chapter.

2017

John Fraser, MPP (Ottawa South), parliamentary assistant to the minister of health and long-term care, visited the Chaudi re Falls Expansion Site with the Ottawa Chapter.

Lisa Thompson, MPP (Huron-Bruce), PC international trade, indigenous relations and reconciliation critic, visited Price Schonstrom Incorporated with the Georgian Bay Chapter.

Soo Wong, MPP (Scarborough-Agincourt), parliamentary assistant to the minister of community safety and correctional services, visited the Bell Canada office at Scarborough Town Centre with the Scarborough Chapter.

P.ENGs HONOURED WITH NATIONAL AWARDS

By Nicole Axworthy

In May, eight engineers from across Canada received top honours for their contributions to the engineering profession from Engineers Canada, the national organization of the provincial and territorial engineering regulators. From Ontario, **Larry E. Seeley, PhD, P.Eng.**, chair and CEO of Seeley Group Ltd., received the prestigious Gold Medal for his exceptional individual achievements and distinction in engineering. His role in the growth of Canada's mining and metallurgical sector combined with his fostering and promoting new businesses and technologies within the minerals and recycled metals industries worldwide caps his 40-year career. **Mary A. Wells, PhD, P.Eng.**, received the Support of Women in the Engineering Profession Award. As professor and inaugural associate dean, outreach, faculty of engineering, University of Waterloo, Wells is recognized as a significant role model and leader in the Canadian and global engineering community for women. **Amy M. Bilton, PhD, P.Eng.**, received the Young Engineer Achievement Award. As researcher and educator at the University of Toronto's faculty of applied science and engineering, Bilton's research is extremely appealing to students because of its significant international development focus, working on technologies geared towards water and energy solutions for the developing world. **Eduardo (Ted) Maulucci, P.Eng.**, received the Meritorious Service Award for Community Service. As president of SmartONE Solutions Inc., Maulucci not only creates industry-leading solutions in software and smart buildings but also gives generously of his personal time to mentor engineering students, to find funding for academic institutions, and to help entrepreneurs bring their products to market. Presented annually, the Engineers Canada Awards recognize outstanding Canadian engineers, teams, projects, achievements and engineering students, highlighting professional excellence and contributions of engineers to their communities.

New 2017 fellows to the Canadian Academy of Engineering (CAE) were recently announced. The following Ontario P.Engs were inducted: **Robert Andrews, P.Eng.**, professor, civil engineering, University of Toronto; **Michel Bruneau, P.Eng.**, professor, University of Buffalo; **Sanjeev Chandra, P.Eng.**, professor, University of Toronto; **Tom Chau, P.Eng.**, vice president, research, Holland Bloorview Kids Rehabilitation Hospital; **Daolun Chen, P.Eng.**, professor, Ryerson University; **Zhongwei Chen, EIT**, professor and Canada research chair, University of Waterloo; **Thomas Chong, P.Eng., FEC**, project lead,



Ontario recipients of the 2017 Engineers Canada Awards were (left to right) Larry Seeley, PhD, P.Eng., Mary Wells, PhD, P.Eng., Amy Bilton, PhD, P.Eng., and Ted Maulucci, P.Eng.

Ontario Ministry of Health; **John Doering, P.Eng.**, associate vice president, partnerships, University of Manitoba; **Mark Hundert, P.Eng.**, retired national director, Hay Group Health Care Consulting; **Xianguo Li, P.Eng.**, professor, University of Waterloo; **Heather MacLean, P.Eng.**, professor, University of Toronto; **Muthukumaran Packirisamy, P.Eng.**, professor, mechanical engineering, Concordia University; **Scott Phillips, P.Eng.**, CEO, StarFish Holdings Inc.; **Christopher Pickles, P.Eng.**, professor, Queen's University; **Andrew Pollard, P.Eng.**, professor and Queen's research chair, Queen's University; **Ishwar Puri, P.Eng.**, dean of engineering and professor, McMaster University; **Chris Roney, P.Eng., BDS, FEC**, president, Roney Engineering Ltd.; **Mehrdad Saif, P.Eng.**, dean, faculty of engineering, University of Windsor; **Khaled Sennah, P.Eng.**, professor and department chair, civil engineering department, Ryerson University; **Joao Soares, P.Eng.**, professor, University of Alberta; **John Young, P.Eng.**, retired director, steelmaking and casting, Hatch Canada; **Wei Yu, P.Eng.**, professor and Canada research chair, University of Toronto; and **Dan Zhang, P.Eng.**, Kaneff professor, robotics and mechatronics, York University. Fellows of the CAE are nominated and elected by their peers to honorary fellowship in the academy for their distinguished achievements and career-long service to the engineering profession.

The Canadian Engineering Memorial Foundation (CEMF) has announced its 2017 scholarship recipients. **Elena Uchiteleva**, a third-year PhD student in electrical engineering at Western University, was selected as the \$15,000 Claudette MacKay-Lassonde Award recipient. **Mariko Shimoda**, a second-year mechanical engineering student at the University of Waterloo, received the \$5,000 Engineering Ambassador Award for Ontario. **Olga Misisic**, a second-year chemical engineering student at the University of Toronto, was selected as the \$5,000 Rona Hatt Chemical Engineering Ambassador Award recipient. **Zaineb Al-Faesly**, a third-year undergraduate civil engineering student at the University of Ottawa, is the recipient of the \$10,000 Vale Undergraduate Scholarship. **Vanessa Raponi**, a materials engineering and management student at McMaster University, received the \$5,000 Dillon Undergraduate Engineering Ambassador Award. The CEMF offers monetary scholarships annually to women studying engineering in Canada. [e](#)



Professional Engineers
Ontario

2018 COUNCIL ELECTIONS CALL FOR CANDIDATES

All PEO members are invited to become candidates for the positions of **president-elect, vice president, councillor-at-large** and **regional councillor** (one for each of PEO's five regions) on PEO Council.

1. Any member may be nominated for election to Council as **president-elect, vice president** or **councillor-at-large**, by at least 15 other members. The nomination must include at least one member resident in each region. [Regulation 941/90, s. 14(1)]
 - (a) The position of **president-elect** is for a one-year term, after which the incumbent will serve a one-year term as president and a one-year term as past president.
 - (b) The position of **vice president** is for a one-year term.
 - (c) The **councillor-at-large** position is for a two-year term. One councillor-at-large is to be elected in 2018.
2. Any member residing in a region may be nominated for election to Council as a **regional councillor** for that region by at least 15 other members who reside in the region. [Regulation 941/90, s.14(2) and s. 15.1(2)]
 - (a) The position of **regional councillor** is for a two-year term.

A member nominated for election to Council must complete a nomination acceptance form that states he or she is a Canadian citizen or has the status of a permanent resident of Canada and is a resident in Ontario [section 3(3) of the *Professional Engineers Act*] and consents to the nomination [Regulation 941/90, s. 15]. Nomination petitions for collection of nominators' signatures and nomination acceptance forms may be obtained from the PEO website at www.peo.on.ca, or Ralph Martin, PEO, 40 Sheppard Avenue West, Suite 101, Toronto ON M2N 6K9.

Email: rmartin@peo.on.ca; Tel: 416-840-1115; 800-339-3716, ext. 1115.

Completed nomination petitions and nomination acceptance forms are to be sent only electronically and only to the chief elections officer, elections@peo.on.ca, by 4:00 p.m., December 1, 2017. No personal delivery of forms will be accepted. For further information on becoming a candidate, please refer to the *2018 Council Elections Guide* posted on PEO's website.

2018 VOTING PROCEDURES

The 2018 voting and election publicity procedures were approved by PEO Council in June 2017. Candidates are responsible for familiarizing themselves with these procedures. Any deviation could result in a nomination being considered invalid. Candidates are urged to submit nominations and election material well in advance of published deadlines so that irregularities may be corrected before the established deadlines. Nominees' names are made available as received; all other election material is considered confidential until published by PEO.

1. The schedule for the elections to the 2018-2019 Council is as follows:

Date nominations open	October 23, 2017
Date nominations close	4:00 p.m., December 1, 2017
Date PEO's membership roster will be closed for the purposes of members eligible to automatically receive election material ¹	January 12, 2018
Date a list of candidates and voting instructions will be sent to members	no later than January 19, 2018
Date voting will commence	on the date that the voting packages are sent to members, no later than January 19, 2018
Date voting closes	4:00 p.m., February 23, 2018

All times noted in these procedures are Eastern Time.

¹Members licensed after this date may call in and request that election information be mailed to them by regular mail or, upon prior written consent by the member for use of his/her email address, via email, or via telephone.

2. Candidates' names will be listed in alphabetical sequence by position on the list of candidates sent to members and on PEO's website. However, the order of their names will be randomized when voters sign in to the voting site to vote.
3. A person may be nominated for only one position.
4. Nomination papers are to be submitted only by email (chiefelectionsofficer@peo.on.ca) for tracking purposes. Forms will not be accepted in any other format (e.g. fax, personal delivery, courier, regular mail).
5. Only nomination acceptance and petition forms completed in all respects, without amendment in any way whatsoever, will be accepted.
6. Signatures on nomination papers do not serve as confirmation that a member is formally endorsing a candidate.

7. Candidates will be advised when a member of the Central Election and Search Committee has declared a conflict of interest should an issue arise that requires the consideration of the committee.
8. An independent agency has been appointed by Council to receive, control, process and report on all cast ballots. This "official elections agent" will be identified to the members with the voting material.
9. If the official elections agent is notified that an elector has not received a complete election information package, the official elections agent shall verify the identity of the elector and may either provide a complete duplicate election information package to the elector, which is to be marked "duplicate," by regular mail or email or provide the voter's unique control number to the voter and offer assistance via telephone. In order to receive such information via email, the elector must provide prior written consent to the use of his or her email address for this purpose.
10. Council has appointed a Central Election and Search Committee to:
 - encourage members to seek nomination for election to the Council as president-elect, vice president or a councillor-at-large;
 - assist the chief elections officer as may be required by him or her;
 - receive and respond to complaints regarding the procedures for nominating, electing and voting for members to the Council; and
 - conduct an annual review of the elections process and report to the June 2017 Council meeting.
11. Council has appointed a Regional Election and Search Committee for each region to:
 - encourage members residing in each region to seek nomination for election to the Council as a regional councillor.
12. Candidates for PEO Council may submit expense claims. The travel allowance to enable candidates to travel to chapter events during the period from the close of nominations to the close of voting will be based on the distance between chapters and the number of chapters in each region. Such travel expenses are only reimbursed in accordance with PEO's expense policy.
13. Council has appointed an independent chief elections officer to oversee the election process and to ensure that the nomination, election and voting are conducted in accordance with the procedures approved by Council.
14. The chief elections officer will be available to answer questions and complaints regarding the procedures for nominating, electing and voting for members to the Council. Any such complaints or matters that the chief elections officer cannot resolve will be forwarded by the chief elections officer to the Central Election and Search Committee for final resolution. Staff is explicitly prohibited from handling and resolving complaints and questions, other than for administrative purposes (e.g. forwarding a received complaint or question to the chief elections officer).
15. On or before the close of nominations on December 1, 2017, the president will appoint three members or councillors who are not running in the election as returning officers to:
 - approve the final count of ballots;
 - make any investigation and inquiry as they consider necessary or desirable for the purpose of ensuring the integrity of the counting of the vote; and
 - report the results of the vote to the registrar not later than March 10, 2018.
16. Returning officers shall receive a per diem of \$250 plus reasonable expenses to exercise the duties outlined above.
17. Nomination papers are to be submitted only by email for tracking purposes. Forms will not be accepted by any other format (e.g. personal delivery, courier, fax or regular mail). Candidates should allow sufficient time for their emails to go through the system to ensure that the completed papers are, in fact, received by the chief elections officer by 4:00 p.m. on the December 1, 2017 deadline. In the event of a dispute as to when the forms were sent versus received, a candidate can provide the chief elections officer with a copy of his/her email to PEO that would indicate the time the nomination forms were sent from his/her computer.
18. If a candidate withdraws his or her nomination for election to PEO Council prior to the preparation of the voting site, the chief elections officer shall not place the candidate's name on the voting site of the official elections agent or on the list of candidates sent to members and shall communicate to members that the candidate has withdrawn from the election. If the candidate withdraws from the election after the electronic voting site has been prepared, the chief elections officer will instruct the official elections agent to adjust the voting site to reflect the candidate's withdrawal.
19. A newly-completed nomination petition form, in addition to a new acceptance form, when a candidate changes his/her mind on the position sought.
20. In the event a chapter holds an All Candidates Meeting, the chapter must invite to the meeting all candidates for which voters in that region are eligible to vote.
21. Voting will be by electronic means only (Internet and telephone). Voting by electronic means will be open at the same time the electronic election packages are sent out.
22. All voting instructions, a list of candidates and their election publicity material will be sent to members. All voters will be provided with detailed voting instructions on how to vote electronically. Control numbers or other access control systems will be sent to members by email after the election package has been sent out. The official elections agent will send out an eblast with the

- control numbers (PINs) every Monday during the election period. Election material sent to members electronically or by mail will contain information related to the All Candidates Meetings.
23. Verification of eligibility, validity or entitlement of all votes received will be required by the official elections agent. Verification by the official elections agent will be by unique control number to be provided to voters with detailed instructions on how to vote by Internet and by telephone.
 24. The official elections agent shall keep a running total of the electronic ballot count and shall report the unofficial results to the chief elections officer who will provide the candidates with the unofficial results as soon as practically possible.
 25. Voters need not vote in each category to make the vote valid.
 26. There shall be an automatic recount of the ballots for a given candidate category for election to Council or bylaw confirmation where the vote total on any candidate category for election to Council between the candidate receiving the highest number of votes cast and the candidate receiving the next highest number of votes cast is 25 votes or less for that candidate category or where the votes cast between confirming the bylaw and rejecting the bylaw is 25 votes or less.
 27. Reporting of the final vote counts, including ballots cast for candidates that may have withdrawn their candidacy after the opening of voting, to PEO will be done by the returning officers to the registrar, who will advise the candidates and Council in writing at the earliest opportunity.
 28. Certification of all data will be done by the official elections agent.
 29. The official elections agent shall not disclose individual voter preferences.
 30. Upon the direction of Council following receipt of the election results, the official elections agent will be instructed to remove the electronic voting sites from its records.
 31. Election envelopes that are returned to PEO as undeliverable are to remain unopened and stored in a locked cabinet in the Document Management Centre (DMC) without contacting the member until such time as the election results are finalized and no longer in dispute.
 32. Elections staff shall respond to any requests for new packages as usual (i.e. if the member advises that he/she has moved and has not received a package, the member is to be directed to the appropriate section on the PEO website where the member may update his/her information with DMC).
 33. DMC staff shall advise elections staff when the member information has been updated; only then shall the elections staff request the official elections agent to issue a replacement package with the same control number.
 34. Elections staff are not to have access to, or control of, returned envelopes.
 35. After the election results are finalized and no longer in dispute, the chief elections officer shall authorize the DMC to unlock the cabinet containing the unopened returned ballot envelopes so that it may contact members in an effort to obtain current information.
 36. After the DMC has determined that it has contacted as many members whose envelopes were returned as possible to obtain current information or determine that no further action can be taken to obtain this information, it shall notify the elections staff accordingly and destroy the returned elections envelopes.
 37. Nothing in the foregoing will prevent additions and/or modifications to procedures for a particular election if approved by Council.
 38. The All Candidates Meetings will take place the week of January 8, 2018.
 39. All questions from, and replies to, candidates are to be addressed to the chief elections officer:

By email: elections@peo.on.ca

By letter mail: Chief Elections Officer
c/o Professional Engineers Ontario
101-40 Sheppard Avenue West
Toronto, ON M2N 6K9
- The Election Publicity Procedures form part of these Voting Procedures.

2018 ELECTION PUBLICITY PROCEDURES

IMPORTANT DATES TO REMEMBER

Deadline for receipt of publicity materials for publication in <i>Engineering Dimensions</i> and on the PEO website, including URLs to candidates' own websites	4:00 p.m., December 11, 2017
Deadline for submission of candidate material to eblast to members	January 15, 2018—1st eblast January 29, 2018—2nd eblast February 13, 2018—3rd eblast
Dates of eblasts to members	January 22, 2018 February 5, 2018 February 20, 2018
Date of posting period	January 22, 2018 to February 23, 2018
Dates of voting period	12:00 p.m., January 19, 2018 to 4:00 p.m., February 23, 2018.

Note: All times indicated in these procedures are Eastern Time.

- Names of nominated candidates will be published to PEO's website as soon as their nomination is verified.
- Names of all nominated candidates will be forwarded to members of Council, chapter chairs and committee chairs, and published on PEO's website, by December 4, 2017.
- Candidates will have complete control over the content of all their campaign material, including material for publication in *Engineering Dimensions*, on PEO's website, and on their own websites. Candidates are reminded candidate material is readily available to the public and should be in keeping with the dignity of the profession at all times. Material will be published with a disclaimer. The chief elections officer may seek a legal opinion prior to publishing/posting of any material if the chief elections officer believes campaign material could be deemed libelous. The chief elections officer has the authority to reject the campaign material if so advised by legal counsel.
- Candidate material may contain personal endorsements provided there is a clear disclaimer indicating that the endorsements are personal and do not reflect or represent the endorsement of PEO Council, a PEO chapter or committee, or any organization with which an individual providing an endorsement is affiliated.
- Candidates will have discretion over the presentation of their material for the purpose of publishing in *Engineering Dimensions*, including but not limited to font style, size and effects, and are each allocated the equivalent of one-half page, including border, in *Engineering Dimensions* (6.531 inches wide x 4.125 inches in height) in which to provide their election material. A template for this purpose is included in Schedule A of these procedures. If candidate submissions do not include a border, one will be added, as shown on the template. If submissions exceed the bordered one-half page, they will be mechanically reduced to fit within the border.
- Candidates will be permitted to include a photograph within their one-half page. Only photographs taken within the last five years will be accepted.
- All material for publishing on PEO's website and in *Engineering Dimensions* must be submitted to the chief elections officer at elections@peo.on.ca in accordance with Schedule A attached. Candidates shall not use the PEO logo in their election material.
- Candidates' material for publication in *Engineering Dimensions* and on the website, including URLs to candidates' own websites, must be forwarded to the chief elections officer at the association's offices or via email at elections@peo.on.ca no later than December 11, 2017 at 4:00 p.m. and in accordance with Schedule A attached. Candidate material will be considered confidential, and will be restricted to staff members required to arrange for publication, until published on PEO's website. All candidates' material will be published to PEO's website at the same time.
- If campaign material is submitted by a candidate without identifying information, PEO staff are authorized to contact the candidate and ask if he/she wishes to resubmit material. If campaign material is received by the chief elections officer and returned to the candidate for amendment to comply with the election publicity procedures, and the amended material is not returned within the prescribed time, staff will publish the material with a notation explaining any necessary amendments by staff.
- Candidate publicity material will be published as a separate insert in the January/February 2018 issue of *Engineering Dimensions* and to PEO's website in January 2018 and included in any hardcopy mailing to eligible voters with voting instructions. Links to candidate material on PEO's website will be included in any electronic mailing to eligible voters.
- Candidates may publish additional information on PEO's website, provided they email their material to the chief elections officer in the format set out in Schedule A. This material must be received by the chief elections officer no later than December 11, 2017.
- Candidates may submit updates to their material on PEO's website once during the posting period. Any amendments to a candidate's name/designations are to be considered part of the one-time update permitted to their material during the posting period. Candidates may include links to PEO publications, but *not* a URL link to a third party, in their material on PEO's website. Links to PEO publications are not considered to be to a third party. For clarity, besides links to PEO publications, the only URL link that may be included in a candidate's material on PEO's website is a URL link to the candidate's own website.

13. Candidates may post more comprehensive material on their own websites, which will be linked from PEO's website during the posting period. Candidates may include active links to their social media accounts (Facebook, Twitter, LinkedIn, etc.) in material appearing in *Engineering Dimensions*, published on PEO's election site (i.e. the 1000-word additional information candidates may submit), or included in an eblast of candidate material.
14. PEO will provide three group email distributions to members of candidate publicity material beyond the material published in *Engineering Dimensions*. Material to be included in an eblast must be submitted to the chief elections officer at elections@peo.on.ca in accordance with Schedule A.
15. Candidates are responsible for responding to replies or questions generated by their email message.
16. The chief elections officer is responsible for ensuring that all candidate material (whether for *Engineering Dimensions*, PEO's website or eblasts) complies with these procedures. Where it is deemed the material does not satisfy these procedures, the chief elections officer will, within three full business days from receipt of the material by the association, notify the candidate or an appointed alternate, who is expected to be available during this period by telephone or email. The candidate or appointed alternate will have a further three full business days to advise the chief elections officer of the amendment. Candidates are responsible for meeting this deadline. Should a candidate fail to re-submit material within the three-business-day period, the candidate's material will be published with a notation explaining any necessary amendments by staff.
17. PEO will provide candidates the opportunity to participate in All Candidates Meetings, which will be held at PEO offices during the week of January 8, 2018. The All Candidates Meetings will be video recorded for posting on PEO's website. On the day of the first All Candidates Meeting, an eblast will be sent to members announcing that these video recordings will be posted on the PEO website within two business days.
18. Caution is to be exercised in determining the content of issues of membership publications published during the voting period, including chapter newsletters. Editors are to ensure that no candidate is given additional publicity or opportunities to express viewpoints in issues of membership publications distributed during the voting period from January 19, 2018 until the close of voting on February 23, 2018 beyond his/her candidate material published in the January/February issue of *Engineering Dimensions*, and on the PEO website. This includes photos (with or without captions), references to, or quotes or commentary by, candidates in articles, letters to the editor, and opinion pieces. PEO's communications vehicles should be, and should be seen to be, nonpartisan. The above does not prevent a PEO publication from including photos of candidates taken during normal PEO activities, e.g. licensing ceremonies, school activities, GLP events, etc., provided there is no expression of viewpoints. For greater clarity, no election-specific or election-related articles, including Letters to the Editor and President's Message, are to be included in *Engineering Dimensions* during the voting period. *Engineering Dimensions* or other PEO publications may contain articles on why voting is important.
19. Chapters may not endorse candidates, or expressly *not* endorse candidates, in print, on their websites or through their list servers, or at their membership meetings or activities during the voting period. Where published material does not comply with these procedures, the chief elections officer will cause the offending material to be removed if agreement cannot be reached with the chapter within the time available.
20. Candidates may attend chapter annual general meetings and network during the informal portion of the meeting. Candidates are permitted to attend chapter functions in their current official capacity but are prohibited from campaigning while operating in their official capacity.
21. The Central Election and Search Committee is authorized to interpret the Voting and Election Publicity guidelines and procedures, and to rule on candidates' questions and concerns relating to them.

These Election Publicity Procedures form part of the Voting Procedures.

SCHEDULE A: 2018 ELECTION PUBLICITY PROCEDURES SPECIFICATIONS FOR CANDIDATE MATERIALS

<p>Publication format (candidate statements in <i>Engineering Dimensions</i> and PEO website)</p>	<p>Material for publication in <i>Engineering Dimensions</i> must fit into the bordered template provided at the end of these specifications. The template dimensions are 6.531 inches wide and 4.125 inches in height. All submissions will be published with a border. If submissions are received without a border, one will be added as shown on the template. If submissions do not fit within the template, they will be mechanically reduced to fit.</p> <p>All material for publication must be submitted as a PDF document with images in place for reference, and as a formatted Word file, or in a Word-compatible file, showing where photographs are to be placed. Photos must also be submitted as specified below.</p> <p>Candidates shall not use the PEO logo in their election material.</p> <p>Candidate material may contain personal endorsements provided there is a clear disclaimer indicating that the endorsements are personal and do not reflect or represent the endorsement of PEO Council, a PEO chapter or committee, or any organization with which an individual providing an endorsement is affiliated.</p> <p>The publications staff needs both a PDF file and a Word file of candidate material. This allows them to know how candidates intend their material to look. If there are no difficulties with the material, the PDF file will be used. The Word file is required in case something isn't correct with the submission (just a bit off on the measurement, for example), as it will enable publications staff to fix the problem. A hard and/or digital copy of a candidate's photo is required for the same reason and for use on the PEO election website.</p>
<p>Photographs</p>	<p>Photographs must be at least 5" x 7" in size if submitted in hard copy form so that they are suitable for scanning ("snapshots" or passport photographs are not suitable).</p> <p>Only pictures taken in the last five years will be accepted.</p> <p>If submitted in digital form, they must be JPEG-format files of at least 300 KB but no more than 2MB.</p> <p>Candidates can submit a digital photo at the specifications noted, or hard copy as noted, and preferably both. In case the digital file is corrupted or not saved at a sufficiently high resolution, publications staff can rescan the photo (hard copy) to ensure it prints correctly, as indicated on the PDF.</p>
<p>PEO website (candidates' additional information)</p>	<p>Candidates may publish additional information on PEO's website by submitting a Word or Word-compatible file of no more than 1000 words, and no more than three non-animated graphics in JPEG or GIF format. Graphics may not contain embedded material.</p> <p>Candidates may post additional material on their own websites, which will be linked from PEO's website. URLs for candidates' websites must be active by December 11, 2017.</p> <p>Candidates may include links to PEO publications but <i>not</i> a URL link to a third party in their material that is to be posted on PEO's website. Links to PEO publications are not considered to be to a third party. For clarity, the only URL link that may be included in a candidate's material on PEO's website is the URL to the candidate's own website. Candidates may include active links to their social media accounts (Facebook, Twitter, LinkedIn, etc.)</p>
<p>Deadline for <i>Engineering Dimensions</i> and website additional information submissions</p>	<p>Candidates' material for publication in <i>Engineering Dimensions</i> and on PEO's website must be forwarded to the chief elections officer (elections@peo.on.ca) by December 11, 2017 at 4:00 p.m.</p>
<p>Eblast material</p>	<p>Candidates are permitted a maximum of 300 words for email messages. Messages are to be provided in 11 pt. Arial font; graphics are not permitted. For clarity, a "graphic" is an image that is either drawn or captured by a camera.</p>
<p>Deadline for eblasts to members</p>	<p>Candidates' material for eblasts to members must be forwarded to the chief elections officer at elections@peo.on.ca:</p> <ul style="list-style-type: none"> • By January 15—for eblast on January 22 • By January 29—for eblast on February 5 • By February 13—for eblast on February 20
<p>Help</p>	<p>Candidates should contact the chief elections officer (elections@peo.on.ca) if they have questions about requirements for publicity materials.</p>

COUNCIL TO IMPLEMENT TERM LIMITS AND SUCCESSION PLANNING

By Nicole Axworthy

513TH MEETING, JUNE 22, 23, 2017

At its June meeting, Council approved the Council Term Limits Task Force's (CTLTF) revised recommendations for term limits and succession planning. The CTLTF presented its original report at the March 2017 Council meeting but Council directed the report be referred back to the task force for further deliberation and that the task force report back at Council's June meeting (see In Council, *Engineering Dimensions*, May/June 2017, p. 62).

Discussion among councillors focused mainly on how long a hiatus from Council is appropriate for anyone who reaches their term limit. Ultimately, Council amended the task force's alternative recommendation of 10 years to six years. Approved recommendations, along with policy direction outlined in the CTLTF report and recommendations, will be sent to the Legislation Committee for development of any necessary act, regulation and/or bylaw changes, and will be advertised and put into practise with the 2019 Council elections. Council will also establish a succession planning task force to implement the succession planning recommendations with an annual budget of \$60,000. Council also approved the motion that the CTLTF be stood down with thanks. More information about the CTLTF's report and recommendations can be found at www.peo.on.ca/index.php/ci_id/29629/la_id/1.htm.

DISCIPLINE COMMITTEE APPEALS

Council has approved a new policy that allows the registrar to appeal a decision or order of the Discipline Committee on behalf of PEO. The policy includes criteria that allows the registrar to appeal a decision within 30 days if, in his or her opinion, it raises a question of jurisdiction, of fact or law with implications for future decisions, of an issue that may affect the public interest, or of procedural fairness.

Appeals by either party to a proceeding are authorized by section 31 of the *Professional Engineers Act* and other regulators have also exercised similar powers. Prior to February 2017, no appeal had ever been commenced by PEO from any decision of the Discipline Committee.

At its September 2011 meeting, Council approved 24 of the recommendations contained in the *Complaints and Discipline Process Task Force Final Report to Council*, one of which recommended PEO develop criteria for when it is appropriate for PEO to appeal a Discipline Com-

mittee decision, with the rationale that from time to time it may be in PEO's or the public's best interest to appeal. The new policy will be periodically reviewed by Council to ensure it continues to be appropriate and provides an up-to-date framework in which decisions can be made and implemented.

GLP TO IMPLEMENT AUDIT PLAN

At its June meeting, Council approved implementation of a Government Liaison Program (GLP) audit implementation plan to address the recommendations given in the audit report prepared by Don Dickson of D&B Dickson Management Solutions Inc.

In February 2016, Council passed a motion to undertake a review of the GLP. The scope of the review was to determine whether the GLP is operating as designed and whether it is achieving the expected results. The review found that the GLP was meeting its intended objective, but 32 recommendations were made to help further improve the program. The implementation plan for these recommendations was assigned to the GLP without a budget. With Council's approval, the GLP will proceed to act on the implementation plan, with additional budgets identified for development of an online MPP interactions database and online orientation training module, as well as a certification training program for GLP representatives.

2018 BUDGET ASSUMPTIONS APPROVED

Council has approved assumptions to guide development of PEO's 2018 operating and capital budgets. The operating budget is to be balanced with no increase in fees for the ninth consecutive year. Net growth for full-fee professional engineers is assumed to be 1 to 1.5 per cent, while retirees and partial fee members are assumed to increase by 3 to 4 per cent. The Financial Credit Program is expected to continue, which will have an impact on engineering intern (EIT) and P.Eng. application fee revenues. Investment income in 2018 is expected to be in the range of 5 to 6 per cent versus 2 to 3 per cent in 2017 but may be revised based on input from PEO's investment manager. Salaries are assumed to increase by 3 per cent, comprising a consumer price index adjustment of 2 per cent and a 1 per cent merit pool. Non-labour expenses are assumed to increase at the forecast inflation of 2 per cent and all programs will be subject to evaluation. Chapter spending may vary outside the range of the forecasted inflation rate, depending on a review of chapter business plans, chapter bank balances and regional business demands. Council will have an opportunity to review a draft budget in September, prior to approval in November. **e**

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Deadline for September/October is July 25, 2017. Deadline for November/December is September 19, 2017.

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What's in a name?

Roger Jones, MBA, P.Eng., SMIEEE, FEC,
Thornhill, ON

Is it time to get rid of “professional” in our title? I hear a collective gasp of incredulity from many members.

While the *Professional Engineers Act* reserves the title “engineer” for licensed practitioners, there are still many references to “professional (sic) engineer” in the act. Attaching “professional” actually demeans “engineer.” Consider:

I do not retain a *professional* accountant to file my tax return; I retain an accountant.

My wife does not take our cats to a *professional* veterinarian; she takes them to a veterinarian.

I do not go to a *professional* physician for my annual check-up; I go to a physician.

My neighbour did not retain a *professional* architect to rebuild his home; he retained an architect.

These regulated professions practise under their core names with full recognition. So should we.

Our use of “professional” also hints of supplication. Dickens has his famous character Oliver Twist approach the workhouse master and say, “Please, sir, I want some more.” Essentially, we are saying to the world, “Please, sir, we are ‘professional’

engineers, not that other raggle-taggle kind, so please can we have some more?” Not a good strategy! It didn’t work for Oliver, either!

Simply replacing P.Eng. with Eng. would align ourselves with Quebec’s sensible ing. nomenclature. Professional Engineers Ontario could become Engineers Ontario. Engineers Canada (which we own with the other provinces) got it right from the beginning.

We could start the process by just doing it from now on. There is no logical conflict; just edit “professional” out of texts as and when updated. Of course, there’s a big blue sign over our headquarters building—leave it there for now! In due course it could be changed to read Engineers Ontario at a modest cost. Our friends at OSPE could easily become the Ontario Engineering Association to even better welcome their associate members.

Further, if we assume the designation Eng., I advocate it be placed in front of the name as an honourific, e.g. Eng. John/Jane Doe. Thus, a hypothetical ordained minister with a PhD and honoured by Engineers Canada would be known as Rev. Dr. Eng. John/Jane Doe, FEC.

Words in the act would need changing, but not the meaning. Of course, it would impact the PEO brand. Marketers say don’t mess with the brand...when it is working. But our brand is struggling—see OSPE labour market studies. Too many BEng grads don’t pursue a licence and far too many engineers (no need to say “licensed engineers”) are under or unemployed. This is not the concern of the regulator, which is charged with enforcing the licence mandate. Unfortunately, large areas of engineering practice are inaccessible to PEO—the horse is, indeed, out of the barn.

I would like to hear opinions from members on the idea of just the “engineer” designation.

Lead time for licensure

Samantha Doyle, P.Eng.,
Toronto, ON

204 days. That’s how long it took between the submission of my application for licensure until I received notice that my application had been successful. This is a truly unacceptable lead time. As young EITs wait for their licence, they are being denied further job opportunities and raises that a licence brings. I shudder to think of the cumulative financial impact this is having on young engineers across Ontario. Furthermore, we are told “not to request a status update” during this time. In my professional life, it would be unacceptable if I were to double lead times, and told my customers not to contact me. Why should PEO not have to adhere to the standards that engineers must follow in their careers? And for this pleasure we pay hundreds of dollars in application fees.

The application for licence system is clearly in need of a revamp. We deserve shorter lead times, and a more transparent application process, perhaps in the form of a portal with contact information and a status bar with milestones. That would be a much more inviting way to start our professional careers.

LETTERS TO THE EDITOR are welcomed, but must be kept to no more than 500 words, and are subject to editing for length, clarity and style. Publication is at the editor’s discretion; unsigned letters will not be published. The ideas expressed do not necessarily reflect the opinions and policies of the association, nor does the association assume responsibility for the opinions expressed. Emailed letters should be sent with “Letter to the editor” in the subject line. All letters pertaining to a current PEO issue are also forwarded to the appropriate committee for information. Address letters to naxworthy@peo.on.ca.

Industrial exception revisited

Elio Comello, P.Eng.,
Camlachie, ON

The editor's note added to my letter ("Simplifying the situation," *Engineering Dimensions*, January/February 2017, p. 42) by PEO's enforcement team confirms the veracity of my example and its contentions. The industrial exception is a blanket; encompassing the entire practice of engineering, voiding the rigour, procedures and checks required of those who offer service to the public. I've discussed and championed this with peers, the PEO electorate and previous letters to the editor. Disbelief was common. I had great hopes that PEO's program for repeal would bear fruit. With the legislation withdrawn, PEO's response is condescending. We cannot protect the public interest. The editor's note confirms this: "PEO is unable to regulate the engineering work that is permitted under the exception." My example may have raised some eyebrows and educated others. Permit me to share another, based on an actual occurrence, being offered purely to illustrate the industrial exception's impact on our profession.

Example: An incident occurs, within the fenced boundary of an industrial facility. This incident causes property damage at a nearby residence and personal injury. A lawsuit for injury and property

damage follows. An incident investigation reveals deficient engineering as the root cause. The company is sued. An employee, not licensed, author of the engineering work, and a fellow employee in the department, a licensed engineer, are individually sued. Mediation by lawyers agree that the company did not use a person with credentials from a professional organization (insufficiently qualified), nor did company norms require professional supervision. Faced with a weak defense, the company settled out of court, governed by gag order and clauses of nondisclosure, leaving uncertainty regarding responsibility and liability impacting employee engineers. This outcome left many ambivalent about the value of professional membership. It led professional engineers (employees) to question the company about their roles and responsibilities. Another question was if legal and liability protection was part of their employment contract or left to the individual. These policy issues remained up in the air, and they were never made clear. The company did give notice that it expected eligible employees to secure PEO registration, with the company reimbursing membership fees. Curiously, titles such as engineering manager and engineering department remained.

In good conscience, how can PEO continue to "regulate the practice of professional engineering...in order that the public interest may be served and protected," when the majority of PEO members being employee engineers are exempt and therefore not regulated? Perhaps regulated industrially exempt engineering could have avoided the GM ignition switch litigation—just saying.

As a senior, retired, soon to surrender his seal, I would propose that PEO clearly state to the province that the exclusions granted by the industrial exception hobble and preclude any ability and therefore any responsibility associated with regulating "exempt" engineering. The industrial exception may be appropriate for a manufacturer of snow shovels or frisbees but for major industries and the safety of many products the public buys, not so much.

Questioning the cause

Ronald Bradshaw, P.Eng.,
Meaford, ON

Can you tell me: Are environmental engineers taught to accept that global warming is caused by man? ("Environmental concerns coaxing new levels of input from P.Engs," *Engineering Dimensions*, May/June 2017, p. 40). Not only I, but many other scientists and engineers, question the concept. To be brief, since the last Ice Age, global temperatures have been up and down over extended periods of time, plus 100 years, and obviously not caused by man.

Moreover, I ask because of the *Green Energy Act*, a product of the

concept, which is probably the greatest waste of taxpayer's money in Ontario's history. The cost of wind power, all things considered, is probably more than double nuclear or hydro. The establishment of new gas plant power was required to back up the unpredictable, intermittent wind power and no reasonable storage of wind power is available. So, when power is generated, more than a third is exported to the US at a fraction of the original cost, or simply dispatched, i.e. dumped (Ontario Independent Electricity System Operator).

With such conditions, would an environmental engineer consider wind (green) power to be a viable or reasonable alternative? As for the environment, when you fly over southwestern Ontario, the scope of the transformation of the landscape

is revealed. Over hundreds of square kilometres, the view is dominated by the ugly windmills. Would this transformation of the environment influence the plans or decision of an environmental engineer?

Although I am doubtful that any category of engineer would approve the *Green Energy Act*, it would be most interesting to hear the comments or position of this newly established engineering category.

The other side

Stephen Korn, P.Eng.,
Ajax, ON

I read the article "Environmental concerns coaxing new levels of input from P.Engs" (*Engineering Dimensions*, May/June 2017, p. 40) encouraging engineers to provide input on climate change and agree with the statement that I should be involved and that my voice be heard. The article is based on the premise that human-generated CO₂ emissions will cause catastrophic climate change, and also that the science is settled. There are two sides to every argument, however, and on this issue one side has been shouted down. Anyone who argues against man-generated CO₂ emissions as being the primary cause of global warming is marginalized, demonized and called a denier or a heretic. There are scientific reasons against human-generated CO₂ emissions as being the cause of global warming. Rather than repeat these, I will only reference a few sources for anyone who is interested in hearing the other side of the argument:

- CERN, the world's top particle physics research facility, has confirmed that it isn't man-made CO₂ that causes climate change; it's the sun (<https://townhall.com/columnists/dennisavery/2017/04/04/new-eurostudies-confirm-sun-dominates-earths-climate-n2308564>).
- Over 30,000 scientists from the National Academy of Sciences have signed a petition challenging man-caused global warming theory. Over 9000 of these scientists have PhDs (www.petitionproject.org).

- The Twelfth International Conference on Climate Change, which took place on March 23 to 24, 2017 in Washington, DC, provides a great deal of evidence against man-generated CO₂ as being the cause of global warming (<http://climateconference.heartland.org/>).

Probably more than a trillion dollars has been spent on reducing man-generated carbon emissions and trillions more could follow. This would be money immorally wasted if man-generated CO₂ emissions is not the problem.

Some reasons to question man caused global warming:

- The highly promoted Al Gore movie states that as atmospheric CO₂ changes, temperature follows. Actually, the reverse is true: CO₂ follows temperature.
- CO₂ is not a "pollutant" as some politicians in the United States have stated and have proposed into law. There is a huge benefit for a higher level of CO₂ in the atmosphere. The more CO₂ the better plant life thrives. This has huge implications for world food production.
- If all of the corn used for producing ethanol for automobiles were to be used for food instead, it would probably be sufficient to eliminate all hunger on the planet. This is a moral issue.
- Man-caused global warming theory was proposed by the United Nations Inter-Governmental Panel on Climate Change (IPCC). Note the word "governmental" in the title. This is primarily a political panel, not a scientific one. Man-caused global warming theory is driven by politics, not science. Reference the YouTube video by Donna Laframboise (Canadian) for an evaluation of the IPCC (<https://www.youtube.com/watch?v=U5weFQYBL5w>).

I hope that scientists and engineers are brave enough to stand up for science and not be cowed by political correctness.

Affected by politics

James Brant, P.Eng.,
Cobourg, ON

Regarding rescinding the industrial exception, there was a great deal of interest in doing this in the best interest of public safety, however, I feel the government lost interest when it was discovered how many non-engineers doing engineering work were affected by the industrial exception. A lot of people would lose their jobs and blame the government and affect re-election chances for politicians in the ruling party. The government recanted on the plan to eliminate the industrial exception for personal, selfish interests (i.e. to get re-elected) at the expense of the safety of the general public.

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Thank you, PEO!



Chris Morgan and Erastus Mutle at Kwangu Kwako, a social venture in Nairobi, Kenya.

Engineering graduate, Chris Morgan, is a fellow with Engineers Without Borders who works with Kwangu Kwako. EWB invests capital and talent in this startup in Nairobi to build safe homes for families living in slum conditions. Your support to EWB helps send fellows like Chris to our partner ventures in Africa.

Thank you.

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