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ENGINEERING DIMENSIONS

NOVEMBER/DECEMBER 2016



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COMPETENCE ASSURANCE FOR PROFESSIONAL ENGINEERS



George Comrie
MEng, P.Eng., CMC, FEC
President

BY NOW YOU should be aware that task forces commissioned by PEO council have been addressing for almost two years the subject usually referred to as continuing professional development, continuing professional competence or professional quality assurance, with a view to recommending additional regulatory measures for adoption by council and licensees. Because this terminology seems to carry some negative baggage in the minds of practitioners, I have chosen a slightly different one for the subject—and for the title of this message—that I hope will focus readers on the real objective of such measures: assuring ourselves and the public

that we remain competent and ethical throughout our professional careers. A wise former council colleague used to say that “PEO is in the competence assurance business.” I find that observation useful when assessing PEO’s effectiveness as a regulator. So from here on I will refer to the subject at hand as competence assurance.

To my mind, competence is an amalgam of three basic components: knowledge, practice skill and character. These components are tightly interwoven and cannot be separated. And I can’t consider myself competent as a professional unless I measure up in all three areas. These are the factors we attempt to measure when assessing an applicant for initial licensure, and these are the factors by which we, as professionals, must assess our continuing competence throughout our careers.

I have also chosen to present my thoughts in the form of answers to questions I keep hearing from PEO members on the subject. But first a disclaimer: While I hope to give readers a sense of where I see us going with competence assurance and the thinking behind that direction, the views expressed are my own as your president and do not necessarily reflect the will of council. (Council is expected to discuss the issue at the November 2016 council meeting.)

WHY IS PEO CONSIDERING ADDITIONAL COMPETENCE ASSURANCE MEASURES? WHAT IS THE PROBLEM WE ARE TRYING TO SOLVE?

To begin, we’re not doing this because someone in authority has directed us to. In the Report of the Elliot Lake Commission of Inquiry, Commissioner Paul R. Bélanger recommended that PEO establish a system of “mandatory continuing professional education” for its members as soon as possible, but the commission did not hear any evidence that the tragedy might have been averted had such a program been in place for professional engineers.

There also exists no evidence of widespread incompetence or negligence on the part of licensed professional engineers. Relative to members of other senior professions, PEO members attract relatively few complaints. And in those cases that are referred to discipline, the allegations are most often of professional misconduct, not incom-

petence. In other words, the licensee knew what should have been done and how but failed to do it, or knew what not to do but did it anyway. I am satisfied that most of you take your professional responsibilities seriously, including the responsibility to keep up to date in your technical knowledge and skills.

None of these observations, however, implies that a professional regulator like PEO should not require anything of its licensees beyond their initial licensure. Knowing that life-long learning and upgrading of skills is an integral part of any skilled profession, the public has an expectation that regulators will at least monitor whether such learning and upgrading is taking place, if not mandate certain development activities, possibly even with some recertification. I can attest that former Ontario attorney general Madeleine Meilleur made it clear in meetings with PEO that she expected us to implement some form of competence assurance for licensees. She wasn’t about to tell us exactly what to do or how to do it, but she was quite insistent that we do something and was encouraged by the fact that we had a task force working on proposals.

So our problem is a credibility problem. PEO needs to be seen to be engaged in monitoring its licensees’ ongoing competence assurance activities, not simply trusting that they are taking place. It is becoming increasingly difficult to convince those outside our profession that we are self-regulating when PEO does not even know, except anecdotally, our licensees’ scopes of professional practice. Ironically, I am convinced the fact that we do not require anything of our licensees on an ongoing basis other than payment of their annual dues contributes to their apathy and indifference towards PEO. The status quo in terms of competence assurance is not a sustainable option for PEO or its members.

WHAT ARE THE CONCERNS PEO MEMBERS HAVE EXPRESSED WITH TYPICAL COMPETENCE ASSURANCE SYSTEMS? HOW IS THE PROPOSED SYSTEM DIFFERENT FROM MOST OTHER MEASURES IN PLACE TODAY?

Historically, PEO members have resisted imposition of the typical competence assurance measures that have been implemented in many other professional organizations on the grounds that they:

PRESIDENT'S MESSAGE

- Are one-size-fits-all—they do not take into account adequately the diversity of scopes of engineering practice or practice environments;
- Are formula-based—so many hours per year of different types of allowable continuing education activity;
- Force practitioners to take courses that may have no relevance to their individual practices, with associated costs and loss of earning time; and
- Are just window-dressing—they are not focused on reducing risk to the public of incompetent or unethical practice.

A PEO task force was therefore tasked with designing a competence assurance system that would be:

- Risk-based—to take into account the risks to the public associated with the individual licensee's scope(s) of practice and practice environment;
- Flexible—to accommodate the development needs of the individual practitioner, as well as different approaches to practice quality improvement; and
- Measurable—in terms of its efficacy in promoting competent and ethical practice.

I am impressed with the innovative approach the task force has developed for PEO licensees. It deals substantively with the truth that only the individual practitioner can determine what he or she needs to learn and where he or she needs to improve practice in order to remain competent. Rather than simply prescribing a fixed number of hours of specified competence assurance activity over some period of time, it attempts to engage the practitioner in an honest assessment of his or her needs for continuing education to enhance his or her practice environment, and to “sharpen the saw” in terms of sensitivity to ethical challenges.

HOW WOULD THE PROPOSED COMPETENCE ASSURANCE SYSTEM AFFECT ME AS A PRACTITIONER?

The first and arguably most fundamental change from current PEO practice would be the requirement for all licensees to report annually on their status as a practitioner—whether or not they are practising professional engineering within the meaning of the *Professional Engineers Act* and if they are, in what specific scope(s) of practice. This requirement would, for the first time in our history, provide us

with real data about the nature of engineering practice in Ontario that would enable PEO to focus its regulatory efforts on gaps in practice standards and enforcement of rights to practice. The data would also go a long way towards enhancing public and government confidence in PEO as a regulator.

The practising versus non-practising question deserves special mention. We recognize that many PEO members are, through the evolution of their careers, no longer practising professional engineering within the meaning of the act. Such individuals would not be expected to engage in competence assurance activities—at least ones related to engineering technology and practice. They would, however, be expected to complete, on a periodic basis (perhaps annually) a short online ethics refresher module that would pose cases involving ethical dilemmas. The purpose of this component is to encourage each licensee to reflect on his or her ethical obligations and how they play out in day-to-day practice. The reason that even non-practising members would be required to complete it is that the P.Eng. is not just a right to title—it is a right to practise. And unless an individual has given up that right to practise by signing a declaration of non-practising status and returning his or her seal, he or she could resume active practice at any time.

For those who report they are engaged in the practice of professional engineering, the next step would be to complete a short questionnaire on his or her practice environment. The main purpose of this questionnaire is to cause the licensee to reflect on the activities and processes in place in his or her work environment that contribute to reducing the risk of errors and omissions, and thereby enhance public safety. At the conclusion of the questionnaire, a number of hours of competence assurance activity would be suggested to the licensee, as an indirect measure of the perceived risks associated with his or her scope(s) of practice and practice environment. It is important to note that, in the process of answering the questionnaire, the respondent would be able to see the effects of putting in place quality assurance processes on the suggested number of hours of continuing education activity.

We would also want to know what activities the licensee has engaged in during the reporting period to maintain technical and professional competence, and approximately how much time and cost was involved. Once again, this information in aggregate would be invaluable in maintaining public confidence in our self-regulation.

In summary, the substantive requirement of the proposed competence assurance system is a requirement to reflect and report on what I, as a practitioner, see as my vulnerabilities to competent, ethical practice, and on what I have been doing in the past and propose to do in the future to address those vulnerabilities. I believe the benefits to our professional competence as practitioners and to our credibility as a self-regulating profession will greatly outweigh the modest cost of the proposed measure to us and to PEO. Σ

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By Sharon Aschaiek



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[EDITOR'S NOTE]

INDIVIDUALS HAVE A ROLE IN MAINTAINING PUBLIC TRUST IN THE PROFESSION



Michael
Mastromatteo
Associate Editor

THE JUNE 2012 collapse of the Algo Centre Mall in Elliot Lake and the subsequent inquiry led a number of commentators in the media and elsewhere to ruminate on the culpability of the engineering profession in the disaster.

Some media outlets, in their treatment of the tragedy and its aftermath, suggested the mall collapse invited a crisis of public confidence in Ontario's engineers and their work.

PEO took exception to such a broad brush reaction and led efforts in this magazine and elsewhere to emphasize that the engineering profession was actively taking steps to improve the regulatory safety regime for building inspections in the province. Following the tragedy, PEO worked closely with the Elliott Lake Commission of Inquiry, which endorsed almost all of the 11 recommendations made in the association's submission to the commission.

This was similar in nature to the Walkerton tainted water outbreak of May 2000, in which seven innocent people died after consuming improperly treated drinking water. Although engineers had less presence in the Walkerton case, the disaster brought out the old saw that no one notices engineering at work (or not properly at work) unless something terrible happens.

As a profession that is committed to protecting the public interest, engineers have more than a casual interest in the public perception of the profession as it pertains to fulfilling its public safety imperative.

PEO President George Comrie, P.Eng., FEC, touched on these concerns in an earlier President's Message column, when he cited ethics and personal responsibility as key to professionalism ("Risk, accountability, and public trust," *Engineering Dimensions*, July/August 2016, p. 3): "When I think of the serious public consequences of the engineering work that is taking place daily out of sight and mind of most members of the public, I find it ironic that a government zeros

in on dishonest real estate agents as putting the public at risk," Comrie wrote, referring to a recent move by the British Columbia government to end self-regulation of realtors. "We are running out of time to educate the public at large, and lawmakers in particular, of the critical role engineering plays in their day-to-day lives, and of the many ways professional engineers are safeguarding them and protecting their interest."

It is with these thoughts in mind that we turn our attention in this issue to the question of public confidence in Ontario engineering. One of the additional objects of the *Professional Engineers Act* is to "promote public awareness of the role of the Association (PEO)." This supports the principal object of regulating the profession and governing members "in order that the public interest may be served and protected."

Take a good look at the main feature article ("Inspiring confidence," p. 43) in this issue to learn about some of the things the regulator is doing to promote public confidence in engineering, namely by way of producing performance standards and practice guidelines, ensuring regulatory compliance and, to some extent, outreach to the public and to government policy makers.

But often it comes down to the individual practitioner's integrity and sense of right that gives meaning and strength to any regulatory safety system. Again, as President Comrie reminds us, engineers "must hold ourselves to a higher standard of ethical behaviour than the average member of the public if we hope to maintain public trust." Σ

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Professional Engineers Ontario

THIS ISSUE: Is the provincial government convinced engineers are doing a proper job? What about the general public? Do people believe the engineering profession is dedicated primarily to their protection? These are just some of the questions involved in our examination of public trust in engineering.

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Through the *Professional Engineers Act*, Professional Engineers Ontario governs licence and certificate holders and regulates professional engineering in Ontario to serve and protect the public.

PEO opens investigations into NIPIGON BRIDGE FAILURE

By Michael Mastromatteo



PEO WILL BEGIN registrar's investigations into any engineering practice deficiencies related to the failure of the Nipigon River Bridge last January.

Under the *Professional Engineers Act* (PEA), PEO has the authority to initiate an investigation on an engineering matter without an official complaint being received. A registrar's investigation is based on reasonable and probable grounds that a licence holder and/or Certificate of Authorization holder has committed an act of professional misconduct or incompetence.

The Nipigon River Bridge in northwestern Ontario failed last January, only 42 days after it first opened to traffic. The northwest corner of the bridge deck lifted 60 centimetres during a winter storm and forced the bridge to be closed for about 72 hours until emergency repairs were completed. Traffic was restricted to one lane of the bridge during the repair period, with both lanes re-opened to traffic in late February.

PEO initiated its registrar's investigations on October 14. PEO officials had been in touch with the Ministry of Transportation of Ontario (MTO) over the last several months with a view to conducting its own review into any possible engineering deficiencies of the bridge.

Section 38 of the PEA outlines that registrar's investigations must keep confidential all matters that come to the investigator's attention in the course of the work. The investigator's report is ultimately presented to a PEO statutory

committee that has authority to refer matters or allegations to the Discipline Committee for any further action.

The MTO commissioned engineers at the National Research Council (NRC) and at Surface Science Western at Western University to investigate the probable causes of the incident. The ministry also asked Associated Engineering, a consultant with expertise in cable-stayed bridges, to conduct its own analysis of the bridge deck separation. All groups delivered their reports to the ministry in July but the MTO only released details in September.

In its September 22 statement, the Ontario ministries of transportation and northern development said three main factors led to the malfunction. First was the design of the shoe plate and its flexibility, the second was a "lack of rotation" in the bearing that was constructed, and the third was improperly tightened bolts attaching the girder to the shoe plate.

The government said preliminary estimates for initial repair work in February and for the final repair will run in the area of \$8-12 million.

Guillaume Bérubé, a spokesperson for NRC, says his organization's study concentrated solely on the bolts connecting the shoe plates of the girders on the west side of the bridge.

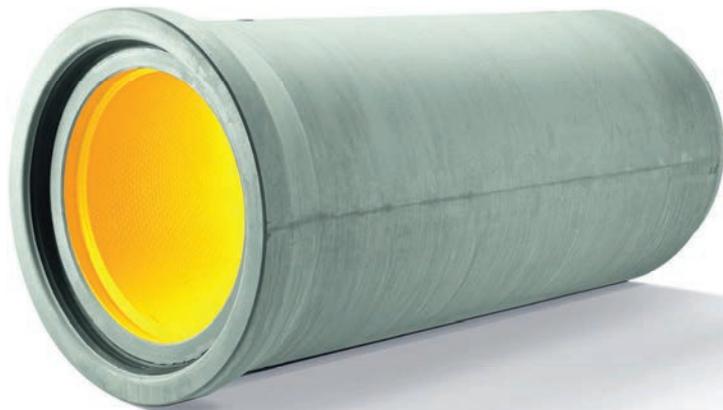
"NRC's analysis found that the bolt metal performed as expected, even at -28 C," Bérubé says. "Our report did not provide any conclusions with respect to the overall performance of the bridge. The effect of wind levels at the time of failure was not part of NRC's analysis."

There was speculation immediately after the failure that cold temperatures and high winds may have contributed to the failure of steel bolts connecting girders and shoe plates to the bridge deck.

The transportation ministry says the engineering reviews concluded that the bolts in question met all requirements of the appropriate standard, and exhibited good performance under cold temperatures. The reports concluded the bolts broke due to overloading that occurred over several weeks, based on the appearance of corrosion on the broken surfaces of some of the bolts.

Readers can view the Nipigon bridge engineering reports in their entirety by visiting the MTO website at www.mto.gov.on.ca/english/highway-bridges/nipigon-bridge.

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PEO considering next move on REPEAL ISSUE

By Michael Mastromatteo



PEO President George Comrie, P.Eng., FEC, is hoping that improved relations with Ontario’s attorney general and labour ministries will keep alive the regulator’s efforts to win the repeal of the industrial exception.

The exception, section 12(3)(a) of the *Professional Engineers Act* (PEA), permits non-licensed workers to carry out acts of engineering on machinery or equipment used to make products in their employer’s facilities.

PEO has long lobbied to have the exception repealed on grounds it creates a safety gap for workers in industrial and manufacturing settings. Ontario is the only province in Canada with the exception in its engineering statutes.

“We are going to keep trying on all fronts,” Comrie said October 3. “We are trying to get the industrial exception removed. I don’t know if we will be successful or not. The odds don’t look very good right now, but we’re not throwing in the towel and we are going to keep trying to get traction with the Ministry of Labour around policy issues where we can actually get through to them.”

Comrie says PEO is considering some form of public campaign to build support for its case against the industrial exception. “We might embark on a public relations campaign that says to the public, we [PEO] have been denied jurisdiction here and as a result we are not looking after the public’s interests on engineering matters that affect worker safety. We’ve been forcibly removed from it and now you [the public] have to take this up with the Government of Ontario.”

The PEO president says recent meetings with officials from the premier’s office and from the labour and attorney general ministries have allowed the engineering regulator to state its case for repeal of the industrial exception more forcibly.

“We told them that we’re not just going to go away and forget about this, and if our jurisdiction continues to be excluded from this area, we have a responsibility to tell the public that is the situation, so that they don’t assume there is some accountability nexus in place,” Comrie adds.

PEO hopes to attend committee hearings now that the Ontario government has reintroduced the *Burden Reduction Act, 2016* which, in an effort to reduce administrative inefficiencies, would remove any chance for PEO to enhance workplace safety by having all engineering work at manufacturing facilities in Ontario covered by the PEA.

Passage of the *Burden Reduction Act, 2016* was arrested in September with the government’s brief proroguing of the Ontario legislature, but the act is now expected to climb on the government’s priority list. It was presented for second reading in the Ontario legislature October 4.

PEO Registrar Gerard McDonald, P.Eng., says the regulator is actively lobbying for an invitation to speak at any committee hearing reviewing the burden reduction bill.

“PEO maintains the view that the repeal of this exception is a workplace safety issue and is the right thing to do,” McDonald says.

Overall, however, PEO officials are guardedly optimistic the government is still willing to hear PEO’s case. “There still may be an opportunity for us to work with them, to collaborate a bit,” Comrie says. “We’re not the enemy. Our purpose is not to embarrass the government. Our purpose is to improve worker safety at the end of the day.”

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Licence holders encouraged to test proposed online practice evaluation questionnaire

By Michael Mastromatteo

PEO's Continuing Professional Competence Program (CP)² Task Force is inviting licence holders to review and test a beta version of its proposed practice evaluation questionnaire. The questionnaire is one of three elements of the newly-named Practice Evaluation and Knowledge (PEAK) program, developed by the task force in response to a directive by council in March 2014 "to prepare a plan for a comprehensive program of continuing professional development and quality assurance."

Information on how to access the questionnaire is available on PEO's website (www.peo.on.ca).

Other elements of the proposed PEAK program include the reporting of continuing professional knowledge activities by practising licence holders and an online ethics module.

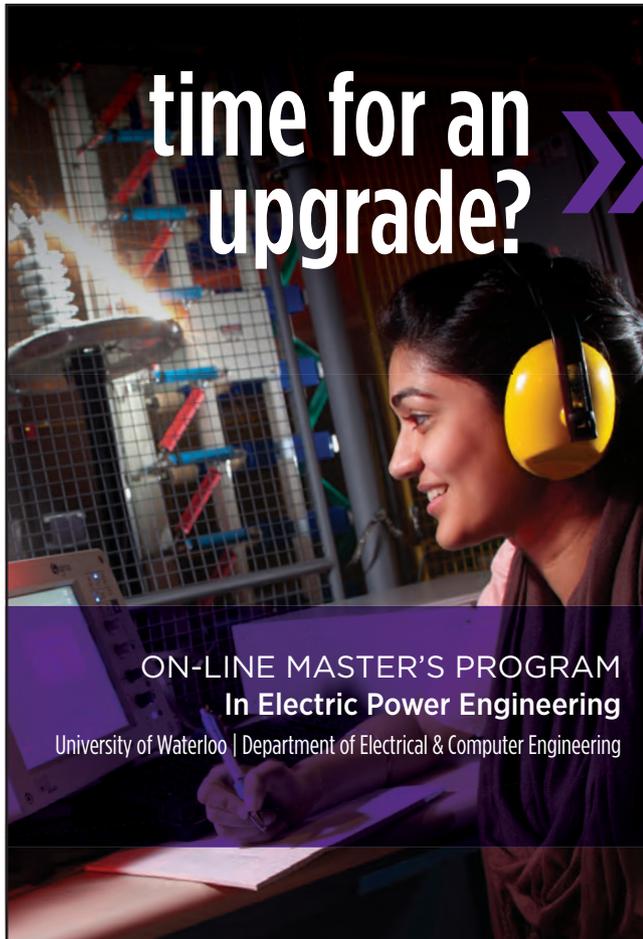
For those who identify as non-practising licence holders, the questionnaire is simply a declaration that they are not practising professional engineering in any capacity. Non-practising licence holders would not be assigned a recommended number of hours for continuing professional knowledge. Under the plan, all licence holders would be required to complete the online ethics module.

For practising licence holders, the practice evaluation questionnaire is composed of 23 questions on the individual's engineering practice environment. Information gathered through the questionnaire would also be used to determine for each practising licence holder the recommended number of hours of continuing professional knowledge to maintain a level of knowledge and skill commensurate with safeguarding the public interest. This recommendation is provided upon completion of the questionnaire.

Changiz Sadr, P.Eng., FEC, a member of the task force and PEO council, encourages members to review the questionnaire as a key way to help the task force complete its work. "The (CP)² Task Force is a continuation of the risk-based model that was recommended by the previous task force [and which] recommends use of a questionnaire to gather some data about the members," he told *Engineering Dimensions* on September 29. "The purpose of this data-gathering is to find out what percentage of members are practising and what risks their practices pose to the public's safety and well-being. We also want to study what they do to mitigate those risks."

Over the last five months, the task force's work has focused largely on gathering input from licence holders and councilors as to their experience with risk to the public in their individual engineering practices.

The task force will present its final report and recommendations to council for approval at its meeting on November 18.



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The MEng and GDip Programs are fully approved by the Ontario Council on Graduate Studies. For more information on course schedules, fees, and other details, please visit ece.uwaterloo.ca/onlineMEng.



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THE OSPE MANIFESTO:

WHY ENGINEERS MUST HELP SHAPE PUBLIC POLICY



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In the past year, people in advanced democracies have witnessed a renewed public interest in closing the gender gap in politics. In Canada, this movement was reenergized by Prime Minister Trudeau's now famous "because it's 2015" sound-bite—a simple yet powerful statement that urged Canadians to recognize that we are in the 21st century—so let's get on with it.

Canada is a diverse, vibrant, and geographically expansive nation, and gender parity momentum needs to be channeled to address other representation gaps as well, such as improved ethnic and cultural engagement in politics. To adequately expand the tent of political participation, it is important that this also include a greater focus on academic and professional diversity in our parliaments—as Canada currently faces a silent crisis in Science, Technology, Engineering, and Math (STEM).

Take a moment to consider the wide spectrum of economic and social issues and 'asks' politicians are expected to discuss and vote

on. Self-aware politicians will tell you that they are generalists, and seasoned parliamentarians will further tell you that this trait is developed by necessity. Covering numerous issues often means a politician's depth of technical understanding can be limited.

Politicians are likely to have backgrounds in law and business—they are often well educated, but non-technical professionals. In 2009, the Economist went through a sample of almost 5,000 politicians in the *International Who's Who of Professionals* directory to examine their backgrounds. The findings showed a selection bias in politics that favoured non-scientific professionals.

When it comes to engineering, in Canada's House of Commons, Members with engineering backgrounds hold only 4% of the 338 seats. In Ontario, the situation is even worse. At Queen's Park, home of Ontario's Legislative Assembly, fewer than 2% of Members are professional engineers, and not a single engineer is in the current governing party.

Why should this be a concern? Because the issues facing Ontario, Canada, and the world are increasingly complex and technical in nature. Engineers have a scientific understanding of the world in which we live, meaning they appreciate how people and systems interact over the total lifespan of projects. Engineers have an ability to simplify intricate problems and are skilled developers of evidence-based decisions and scenario analyses.

The gap exists at the policy formulation stage, particularly when it comes to critical scientific ministerial portfolios such as energy, the environment and climate change. A significant amount of planning and consideration is given to policy ideas before engineers in the Ontario Public Service have the opportunity to review proposals and offer their recommendations.

Just as lawyers have been historically predisposed to entering politics, engineers have largely been dissuaded—but these trends are changing. Besides the absence of communications or leadership training, the engineer of old was routinely told that their

central role was to serve and protect the public. But if we take a wider-lens view of an engineer's duty to protect the public, by failing to shape policy, engineers aren't fully fulfilling their duty.

Without any doubt, engineers need to serve—but they need to lead as well. Engineering programs at McMaster and the University of Ontario Institute of Technology have identified this need, now offering combined engineering and public policy degrees to teach these critical leadership and communications skills. More and more, Ontario's engineering schools have enhanced the skills development of well-rounded graduates—equipping them with the tools to not only analyze problems and develop solutions, but also to explain those solutions to a non-technical audience, work collaboratively with professionals from different backgrounds to lead implementation, and communicate to the public how society will be positively impacted.

Ontario's engineering students and recent graduates are now becoming increasingly engaged in politics. By positioning the modern engineer on advisory boards and within government-sponsored think tanks, provincial governments stand to reap immediate benefit from the expertise of even one engineering-representative on board. No longer is an engineering graduate's career path black and white – engineering graduates are employed in diverse fields across society. So many of today's most influential start-ups, for instance, have been founded by engineering graduates with

backgrounds in business and commerce.

Engineers are bound by a code of ethics regarding duty of care and protection of the public interest. These are the qualities that the public wishes their politicians would better embody, and engineers stand as ready participants.

Getting engineers involved in politics and shaping public policy decision-making is a core reason for OSPE's existence. Through our Political Action Network (PAN), advocacy task forces, research reports, open letters, blogs, Queen's Park lobby days, and advocacy meetings with Members and Ministers, we help advance the interests of engineers and all Ontarians. For the future of our province, it is critical that government and the public recognize how important engineers are for the prosperity and growth of our communities and the quality of life Ontarians enjoy.

But at the end of it all, OSPE is only as strong, credible, and revered as our membership base is diverse and engaged. If engineers are not ready and willing to proactively contribute their expertise, the voice of Ontario's engineers will be ignored. It is time to change the current discourse and ensure that engineers are not being undervalued or disregarded in the public sphere. In order for governments to avidly invest in engineers, they must recognize engineers' capabilities as innovators, wealth creators, and leaders.

Government decisions are made every day without engineering input and without consideration of the engineering community. That is why OSPE implores every engineering student, graduate and professional engineer in Ontario to answer the call: rally around and support your advocacy organization—and together, let's create positive change by elevating and advancing the engineering profession for the betterment of all Ontarians.

Join OSPE today to help us protect the reputation of your profession – OSPE needs you now to show the strength of Ontario's engineering community in numbers.

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Design table still clouding BUILDING CODE ENHANCEMENTS

By Michael Mastromatteo



PEO IS holding firm in its opposition to the Ontario housing ministry's plan to reintroduce a table of professional design requirements in an updated version of the Ontario Building Code (see *Engineering Dimensions*, January/February 2016, p. 17).

In an August 24 letter to Municipal Affairs

Minister Bill Mauro, PEO President George Comrie, P.Eng., FEC, reiterated the regulator's position that the move would duplicate existing legislation about building design matters, and would undo the legal clarification PEO obtained in 2007 in its challenge of previous building code revision initiatives (Bill 124).

"Such action would contradict the May 14, 2007 Ontario Superior Court ruling that the inclusion of a professional design table was not authorized by the *Building Code Act* and was invalid to the extent that it purported to allocate responsibility for designs between professional engineers and architects," Comrie said in his letter to the minister.



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The PEO response was prompted in part by a July 2016 letter to the municipal affairs minister from the Ontario Association of Architects and other provincial building and design associations calling for the design table to be reinserted, "to reduce any confusion that might exist as to whether an architect and/or engineer is required for work on a specific building [and to allow] for more accurate, consistent application of the Ontario Building Code."

The architects and building officials groups also suggest the table would return to building officials a clear and convenient tool, allowing them to effectively perform their duties.

PEO, however, contends that clarity regarding the scope of practice of both architects and professional engineers is readily available through the PEO/OAA Joint Practice Board and should not be left to the discretion of building officials. "To date, no such conflicts have been brought to PEO's attention, nor has any group availed themselves to the statutory powers of the joint practice board," Comrie said in rebuttal.

PEO has been concerned about the reintroduction of the design table in the building code since 2014, when it was discovered that a proposed clause in the revised building code would allow chief building officials to enforce elements of the engineers and architects acts.

Since then, PEO contends the building code should play no part in allocating design activities between engineers and architects as the practices of engineering and architecture are defined in their respective acts.

PEO also recommends that the housing ministry insert into a revised building code a different table focusing on non-professional designers to aid building officials in administering and enforcing the building code.

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ALGO MALL TRIAL BECOMES LESSON in proper use of engineer term

By Michael Mastromatteo



PEO HAS USED the start of trial proceedings against former engineer Robert Wood to send out a message about the misuse of the engineering title.

Wood, who is facing two counts of criminal negligence causing death in connection with the June 2012 collapse of the Algo Centre Mall in Elliot Lake, had been described in media reports as a “disgraced” or “discredited” engineer.

In response to inaccurate media reports of Wood’s status,

PEO on September 7 issued a media release emphasizing that Wood should be described as a “former engineer.”

“Referring to Mr. Wood as a *former engineer* would be accurate,” PEO said in its statement. “His licence was suspended in November 2011 and revoked in November 2012 as a result of an order from the Discipline Committee of Professional Engineers Ontario stemming from a matter unrelated to the tragedy in Elliot Lake.”

In Canada, the titles “engineer” and “professional engineer” are restricted by law. In Ontario, only those individuals who have demonstrated that they possess the nec-

**“REFERRING TO
MR. WOOD AS A
FORMER ENGINEER
WOULD BE ACCURATE,”
PEO SAID IN ITS
STATEMENT.**

essary qualifications and are currently licensed by PEO can use these titles, which are often abbreviated as P.Eng.

PEO Registrar Gerard McDonald, P.Eng., also cited the Wood trial as an opportunity to remind the public of the engineering profession’s commitment to treat public safety as superior to a practitioner’s obligations to clients and employers.

“The court case also reinforces the importance of the engineer’s licence, through which engineers, like medical and legal professionals, are accountable to the public for their work,” McDonald said in media reports. “We’re interested in any comments that the court makes regarding engineering and the public interest.”

The trial began September 6 in Ontario Superior Court in Sault Ste. Marie. It is expected to last at least five months.



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ESSCO LOOKS TO BUILD ITS PROFILE, AMONG OTHER OBJECTIVES

By Michael Mastromatteo



Building on PEO's links with undergraduate engineering students was a key point of discussion at the August 25 gathering at PEO headquarters. Attending the ESSCO meeting were (back row, left to right) Tracey Caruana, P.Eng., Jeannette Chau, P.Eng., Angel Serah, and (front row, left to right) Jocelyn Lee, Mike Lavdas, Katie Arnold and Robert Plant.

Officials with the Engineering Student Societies' Council of Ontario (ESSCO) look to solidify the group's financial base and complete a survey of undergraduate students as priority items for the coming academic year.

Established in 1987, ESSCO represents the interests of Ontario's 25,000 undergraduate engineering students from 16 provincial universities and colleges. PEO, through its Student Membership and Engineering Intern programs, has been the key supporter of the organization since 2000.

The new ESSCO executive met with PEO officials August 25 to review the group's priorities for the current school year, and to discuss ways in which the engineering regulator can further assist the student council.

Representing PEO at the meeting were Tracey Caruana, P.Eng., manager of engineering intern programs, and Jeannette Chau, P.Eng., manager of government liaison programs.

Angel Serah, a third-year engineering undergraduate at the University of Toronto and a student representative on PEO's Government Liaison Committee (GLC), also attended the August planning session.

Mike Lavdas, a student at Western University, is president of ESSCO for 2017. "For several years the executives of this organization have been working towards an endowment fund of sorts for ESSCO," Lavdas said in an interview. "The idea behind this fund would be to allow ESSCO to operate off of the interest, thus decreasing the cost to students. As an organization, we like to operate with as little overhead as possible."

The two priorities are part of a strategic plan developed by ESSCO leaders in 2014.

Other highlight areas for the student body include forging an official relationship with the Ontario Society of Professional Engineers (OSPE) and working to improve the content and presentation material at the group's annual student conferences.

Lavdas will work with fellow executives Katie Arnold (University of Waterloo), vice president, services; Robert Plant (Ryerson University), vice president, finance and administration; and Jocelyn Lee (McMaster University), vice president, communications, in implementing the ESSCO strategic plan and priority issues.

For Lee, increasing ESSCO's profile among member schools is a high priority: "It's fair to say that many engineering students in Ontario are not aware that they are represented by ESSCO, and we can be a big resource for advocacy, outreach and various opportunities," she told *Engineering Dimensions*. "Because the schools are spread out across Ontario, most of the communication is done through the ESSCO website. This year, I have implemented weekly blog posts related to ESSCO executive activity, executives within engineering societies, events happening at member schools, and conferences. The blog posts are a way to keep students updated with what is happening across Ontario, and provide the VP externals with information to share with their respective schools."

ESSCO officials suggested PEO can assist the organization this year by assisting with the undergraduate student survey.

Angel Serah of PEO's GLC suggested the association could hold more workshops in Ontario universities to increase awareness about what PEO is and its purpose in the engineering profession. "I think inviting students to more PEO organized events—as it has successfully been done at Queen's Park Day—is a large step in improving PEO's relationship with the student community," she added.

The PEO-ESSCO Student Conference takes place November 4 to 6 at Carleton University in Ottawa and will focus on the applicability of the engineering licence to other fields, such as patent law.

More information about the group is available on the ESSCO website, www.essco.ca.



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There's a place for you during NEM 2017

By Rebecca White and Erica Lee Garcia, P.Eng.



Students at an NEM 2016 event in Thunder Bay engaged in a building activity.

March means something special to engineers across the nation because it's National Engineering Month. It's an opportunity for volunteers to bring messages about engineering and engineering technology to youth and members of the public through a wide variety of in-person outreach events and online campaigns.

Engineering professionals and students demonstrate with passion and dedication that anyone can be in our field. A top goal of every event is to promote a message of diversity and inclusion under the theme "There's a place for you!"

Last March, Ontario alone held over 300 NEM-supported events. PEO chapters contributed to 59 events—26 of which were organized by chapters—and nearly a quarter of our Engineers-in-Residence (EIRs) hosted NEM events in their classroom. We hope to make this year's campaign even bigger.

NEM celebrations in Ontario are strengthened by the coalition of organizations with a common interest in inspiring the next generation:

PEO, the Ontario Association of Certified Engineering Technicians and Technologists (OACETT), the Ontario Society of Professional Engineers (OSPE) and Engineers Without Borders Canada (EWB), all of which work together to bring engineering to life for our audience in meaningful ways. This collective effort inspires elementary and high school youth, delights their parents and informs the public about the role engineering plays in society.

TO BE PART OF NEM 2017, APPLY TO ORGANIZE AN EVENT!

PEO chapters receive up to \$700 each to organize NEM events. Innovation Funding is also available for new, groundbreaking ideas and, for the first time, we offer Scale an Innovation Funding to expand select innovations. To get an application or more information, visit nemontario.ca/propose-an-event. The deadline to submit an application to receive NEM funding is November 18, 2016. We encourage all PEO members to connect with us online through social media (@NEMOntario) and visit the website at nemontario.ca. We hope you'll become part of #NEM2017!

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In January 2016, PEO resumed mailing hard copies of *Engineering Dimensions* to all members. Switching to the digital edition is available at members' request. We want to make sure you're getting a version of the magazine that best suits your needs.

We know you're busy, but filling out our online survey is simple and will only take a few minutes.

Go to www.peo.on.ca starting November 7. You'll find a link to the survey on the PEO homepage.

**THE SURVEY
ENDS
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PEO TO KEEP TABS on possible licensing of home inspectors

By Michael Mastromatteo

PEO WILL BE monitoring the fate of a private member's bill in the Ontario legislature that, if passed, would require all home inspectors in the province to be licensed.

A number of professional engineers perform residential home inspections as part of their practice and there is concern these members might object to a requirement for external certification and licensing.

Bill 165, an act to regulate home inspectors, was introduced as a private member's bill by Liberal MPP Han Dong (Trinity-Spadina). The bill received first reading in February 2016.

While home inspection is not considered part of traditional engineering practice, there is no standard scope of work available for the service. The field is largely unregulated, despite the existence of provincial and national home inspection associations that offer specialized training in the area.

Although it's rare for a private member's bill to become law, Ontario's Ministry of Government and Consumer Services appears committed to greater regulation of the home inspection industry.

In August, Minister of Government and Consumer Services Marie-France Lalonde said the bill would require home inspectors to be licensed and set minimum standards for contracts and home inspection reports. The legislation, if passed, would also establish an association to administer and enforce licensing and regulations.

The ministry estimates there are about 1500 home inspectors in Ontario. Some PEO members who do home inspections might object to the need to be licensed by the Ontario Association of Home Inspectors.

Cliff Knox, P.Eng., PEO's manager of enforcement, says the regulator has been monitoring the situation with respect to home inspections.

"There haven't been any inquiries from members to date regarding this, but this could change when the government and consumer services ministry starts its broader consultation on a proposed regulatory regime and any enabling legislation," Knox says. "It's been suggested that PEO take part in the consultation, in case there is any jurisdictional issue with how the regulatory system is implemented."

Knox says one area of concern is a proposed practice standard for an inspection. PEO wants assurance that the standard is limited to reporting observed conditions only, and does not provide an opinion on structural issues or the performance of mechanical systems that might fall within the practice of professional engineering.

"A second issue relates to the qualifications for licensure, and whether a P.Eng. licence would exempt an applicant from any or all requirements," Knox adds.

Alan Carson, owner of Carson Dunlop, an engineering consulting firm specializing in residential and commercial building inspections, says that while some engineers

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might be put off by the requirement for home inspection certification, there is some value in regulating the entire industry and bringing consistency to the qualifications of home inspectors.

“There is no specific discipline in engineering—be it electrical, mechanical, chemical, civil—that focuses on residential construction and that takes the broad perspective that applies to home inspection,” Carson told *Engineering Dimensions*. “We hire and we train engineers all the time, and engineers have a terrific advantage because they have a technical mind, they have proven their ability to train and absorb and comprehend technical concepts. They do have a leg up, but it’s just the specific skill set and knowledge set is not, at least to my knowledge, taught in any engineering programs.”

Graham Clarke, P.Eng., head of the Toronto-based Clarke Engineering, and a former home inspector with Carson Dunlop, says that while greater regulation of home inspectors is welcome, it still might pose problems for engineers in the business. “There are a number of licensed professional engineers working as home inspectors, and I have wondered about the ability of the provincial government to prohibit a P.Eng. from performing an inspection of a residential structure without another licence.”

Graham believes the question of home inspectors actually performing engineering depends on the type of inspection they carry out. “The

practice of home inspection neither precludes nor requires the use of engineering principles,” he says. “The actual methods used to evaluate the home are left to the home inspector. In a typical home inspection, the evaluation would not use engineering principles. An engineer, however, might use engineering principles, including past engineering experience, to evaluate the systems and components of a home.”

Clarke is concerned about a potential conflict for PEO in the event home inspectors are required to be licensed. “I can see the potential for upcoming legislation to prohibit any individual who does not have a home inspection licence from performing a home inspection. And that would mean a holder of a Certificate of Authorization would be legally prevented from performing an evaluation of a home as a part of their engineering practice unless the engineer also held a home inspection licence. I think that PEO should ensure that a situation does not arise wherein professional engineers are prevented from inspecting, either in whole or in part, any or all of the systems of a house.”

UNIVERSITY ACCREDITATION SYSTEM GOES UNDER MICROSCOPE

By Michael Mastromatteo



Examining ways to improve the engineering education accreditation system was the focus of a two-day forum organized by Engineers Canada August 17 to 18 in Ottawa.

More than 120 attendees, including several from PEO, took part in the gathering to discuss a shared vision for the future of accreditation and to consider a process to maintain the currency and relevance of a resulting new system.

Accrediting Canadian university undergraduate engineering programs falls to the Canadian Engineering Accreditation Board (CEAB). The board sets national standards for engineering education and assesses engineering education on behalf of the provincial and territorial regulatory associations.

PEO officials at the forum included Registrar Gerard McDonald, P.Eng.; Deputy Registrar,

Licensing and Registration Michael Price, P.Eng.; President George Comrie, P.Eng. FEC; President-elect Bob Dony, PhD, P.Eng., FEC; and council members Changiz Sadr, P.Eng., FEC, Marilyn Spink, P.Eng., and David Brown, P.Eng., BDS.

In addition to delegates from engineering regulatory associations, the forum attracted university engineering deans, engineering industry employers and even engineering students to hold forth on what might be done to ensure engineering education keeps pace with the changing expectations of engineers in the workplace.

The forum complements two ongoing Engineers Canada consultations on accreditation, the first to consider proposed changes to accreditation criteria, and the second to better understand what stakeholders require from the accreditation system.

After much deliberation, some 71 potential recommendations were suggested, which were then narrowed down to six areas believed to be of highest priority, namely, greater flexibility in the process; pre-approval of new proposals; streamlining of the process; regular annual meetings of the stakeholders; digitizing the process; and ongoing communications. Potential project plans for each of these were discussed and timelines suggested.

Engineers Canada is now going through the various recommendations arising from the forum and a report of proceedings will be created.

OPEA CALL FOR NOMINATIONS

Nominations are being accepted for the 2017 Ontario Professional Engineers Awards (OPEA).

Now in their 70th year, the OPEAs showcase Ontario professional engineers who have made outstanding contributions to their profession and community. Nominate an exceptional engineer or a team of engineers who have led a successful engineering project. OPEA recipients are honoured annually in November at a black-tie gala hosted jointly by the Ontario Society of Professional Engineers and Professional Engineers Ontario.



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Awarded for using new knowledge in developing useful, novel applications or advancing engineering knowledge or applied science, or discovering or extending any of the engineering or natural sciences

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Awarded for applying new technologies or innovative approaches that have enabled new companies to get started, and/or assisted established companies to grow in new directions

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Awarded to outstanding young Ontario engineers who have made exceptional achievements in their chosen fields. Candidates must be no older than 35 as of December 31 in the year the nomination is submitted and have demonstrated excellence in their careers as well as in community and professional participation

ELIGIBILITY

More information about the awards, including selection criteria and nomination forms, is available at www.peo.on.ca, or by email at awards@peo.on.ca.

THE DEADLINE

Nominations are due by 4 p.m. EST on **Wednesday, February 22, 2017**, but they may be submitted at any time during the year.

ELECTORAL SYSTEM MEANS MORE THAN JUST GETTING OUT THE VOTE

By Michael Mastromatteo

AMONG THE MANY activities prescribed in Ontario Regulation 941 of the *Professional Engineers Act* are the minutiae of candidate selection and conduct of PEO's annual elections for governing council. Although it's dry reading for non-legal types, the regulation is a key piece of instruction for a self-regulating profession dedicated to governing, licensing, setting standards for and disciplining its own professional peers.

Obviously, a self-regulated profession expects its executives and policy-making officials to come from within its own professional ranks. This accounts for the Regulation 941 stipulations about selection of candidates for council elections and how elections themselves are to be carried out every year.

Other senior self-regulating professions in Ontario operate under similar conditions when it comes to electing council members—or “benchers,” as is the case with the Law Society of Upper Canada (LSUC). Most of these associations also struggle with the problem of low voter turnout and less than optimal engagement of members in the day-to-day operations of their governing councils.

ENGAGING CANDIDATES

The College of Physicians and Surgeons of Ontario (CPSO) recently ran an appeal on its website for doctor members to consider taking up leadership positions at the council table.

As elected members of council, CPSO members were encouraged to “contribute to the regulation of medicine in Ontario in a host of meaningful ways,” including making decisions about standards of practice and professional conduct, competencies for entry-to-practise, development of new programs to guide the profession, and by service on complaints, discipline, registration and finance committees.

In many ways, the appeal to electoral candidates for the CPSO echoes PEO's challenges in searching out potential candidates for council positions. The key agency coordinating PEO elections and recruiting candidates for president, vice president, councillor-at-large and regional councillor positions

is PEO's Central Election and Search Committee (CESC), this year chaired by former PEO president Annette Bergeron, P.Eng., FEC. The committee's main role is to encourage members to seek nomination for election to council in one of the available positions. It also assists the chief elections officer with voting procedures and tabulation, and receives and responds to complaints regarding the procedures for nominating, electing and voting.

In addition, PEO retains the services of an outside elections agent—Everyone Counts, Inc. will be used for the 2017 elections. Everyone Counts makes sure that all ballots are submitted and counted properly and that the overall conduct of the election is fully above board.

To further assist in conducting its annual elections, PEO publishes an elections guide in *Engineering Dimensions*. It includes an official call for candidates, reiterates the voting and election publicity procedures, and contains a timetable for potential candidates for office to submit all their official campaign material. (For the 2017 election material, see page 48 of the July/August 2016 issue of *Engineering Dimensions*.)

INCREASING VOTER TURNOUT

In addition to ensuring properly-run elections, the CESC is also concerned with encouraging members to get out and vote at election time. “PEO is always looking at ways to increase voter turnout,” says Scott Clark, LLB, chief administrative officer at PEO and the staff advisor to the CESC. “The committee commissioned [polling firm] Ipsos-Reid to conduct a survey and, as a result, modified the way we communicate to voters,” he adds.

One such outcome of the survey was PEO's creation of the new website www.PEOVote.ca.

That site underscores PEO's interest in boosting voter turnout in the upcoming election. In 2016, for example, PEO received only 8218 votes, or 10.3 per cent out of a total of over 80,000 eligible voters. The results weren't much better the previous year, with only 11.5 per cent of members voting for their president, vice president or councillors.

On the PEO Vote website, CESC Chair Bergeron makes an appeal to members to take more interest in council elections: “If we can increase voting in our recent federal election, we can do it for PEO, too,” Bergeron says in a video message. “By voting, you are doing your part to ensure that we, as professional engineers, are in a strong position to continue regulating our own profession. Those we elect to council are your voice, and make decisions about regulations and standards that make an impact on how you do your job.”

The PEO Vote website also reminds would-be voters to look for a voting package, which is mailed to members prior to each elec-

tion. The package includes voting instructions, the member's individual control number and candidates' statements.

Although election procedures differ among Ontario's various self-regulating professions, PEO is still interested in learning what it can do differently election-wise from its fellow regulators. "Voting procedures, such as outlined in Regulation 941, are specific to PEO," Clark points out. "However we do look at other organizations to see if they have ways to engage voters."

COMPARING ELECTION PROCESSES

PEO is not alone in devoting a fair number of staff and volunteer resources to ensure elections are carried out efficiently and fairly. Other engineering regulators in Canada also make annual elections a high priority.

In Alberta, for example, candidates for the governing council of the Association of Professional Engineers and Geoscientists of Alberta (APEGA) can be selected by a nominating committee or be self-nominated. The nominating committee selects candidates based on the composition of council as required by the *Engineering and Geoscience Professions Act*. The committee evaluates candidates' qualifications, experience, skills, and professional and governance expertise and compares that to the gaps of expertise that will be created by those who have completed their term in office.

The Alberta association saw 8289 members vote in its 2016 council election—nearly all of them electronically through its website's Member Self-Service Centre. This represents about 15 per cent of eligible voters, down from 21.6 per cent in 2015. Voter turnout in 2014 was 17 per cent and in 2013 it was 13.6 per cent. The 10-year average for APEGA is 15.9 per cent.

Immediately to the west, the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) also works with a nomination committee charged with seeking and selecting a slate of candidates for election to council. The BC committee seeks candidates through a series of call for nominations notices sent to the membership, and committee members reach out to potential candidates in regions throughout the province. APEGBC officials report this approach has been successful in recruiting new candidates for council.

"We've had a good response to the nominating committee over the last couple of years of people who were interested in being nominated by the committee," says Deesh Olychick, director of member services for APEGBC. "The clear description of the job and the qualities we are looking for helps. We've had good diversity with respect to region and discipline."

Olychick says that, similar to other regulators, APEGBC is always looking for ways to increase voter turnout for elections. The BC association took part in a recent election process environmental scan, initiated by PEO, to gather ideas on how best to engage member voters.

APEGBC voter turnout averages between 20 to 23 per cent. It climbed to nearly 28 per cent in 2015, but that was owing largely to an important association vote on a mandatory continuing professional development program for BC engineers. "In our last member survey, those members who don't participate in voting were asked why," Olychick explains. "About 41 per cent of those members indicated it was because they don't know enough about the candidates or issues and 13 per cent indicated that not enough information is provided."

REGULATORS IN OTHER PROFESSIONS

Non-engineering regulators must also contend with council/board election matters. At the LSUC, some 40 lawyer benchers are elected every four years by Ontario's lawyers. To ensure adequate regional representation, 20 benchers are elected from inside Toronto and 20 are elected from outside Toronto. The LSUC also holds separate elections for its paralegals, who are now part of the LSUC regulatory fold.

As with most self-regulating professions in Ontario, including PEO, the law society council includes a number of lay council members appointed by the province's lieutenant governor-in-council.

In a similar manner, the Chartered Professional Accountants of Ontario (CPAO) works with a council election commission to monitor, review and make recommendations respecting the election process. The CPAO council also makes rulings on eligibility of candidates, reviews the propriety of election materials and any other matters related to the election process, and addresses any matter related to the election system that might impact the integrity of the process or the reputation of the profession.

The accounting regulator encourages its members to participate in annual elections by emphasizing the privilege of self-regulation and the need to exercise that privilege by voting. They also stress how member votes shape the future of the professional association.

All regulatory associations in Ontario, it seems, are eager to encourage greater voter participation and to recruit future leaders from their respective ranks. Σ

[IN MEMORIAM]

THE ASSOCIATION HAS RECEIVED WITH REGRET NOTIFICATION OF THE DEATHS OF THE FOLLOWING MEMBERS (AS OF SEPTEMBER 2016).

ALLEN, Gary Melroy
Alban, ON

ARBOINE, Andre Anthony
Shea
Brights Grove, ON

BAINBRIDGE, David
Orangeville, ON

BARRAN, Arthur Thomas
William
London, ON

BARRY, Thomas W.
Norwalk, CT

BEATTY, Keith Robert
Bailieboro, ON

BIGGAR, David
Nepean, ON

BROWN, Roger Kenneth
Midland, ON

CHAN, David Kin Wai
Markham, ON

CHASIN, Philip
North York, ON

CHATAWAY, Richard David
Mississauga, ON

CHAU, Albert Yiu-Wai
Scarborough, ON

CHEATLE, Keith Richard
Brights Grove, ON

COMEAU, Michael Joseph
Toronto, ON

CONSTANTIN, Mihai
Kanata, ON

COOPER, Roger Norman
Ottawa, ON

CORY, David Lyall
Amaranth, ON

COSENS, William Frederick
Ancaster, ON

CUTLER, Richard Thomas
Burlington, ON

DAVIES, Michael Edward
Stoney Creek, ON

DE VRIES, Tjeerd August
Waterloo, ON

DHALIWAL, Raghbir Singh
Oakville, ON

DODGE, John Logan
Sudbury, ON

DOLLOIS, Philippe Roger
Paul
Guelph, ON

DULMAGE, Harry Blake
Spencerville, ON

DZIEDUSZYCKI, Edward
Alliston, ON

EMERY, John Richard
North York, ON

ERNSTING, Mark John
Toronto, ON

FELDBERG, Shlomo Shel
Ottawa, ON

FOORD, Edward Francis
Coke
Victoria, BC

GADDAS, John Stuart
Brampton, ON

GANGKATHARAN,
Jeyaganesha
Markham, ON

GLASER, John Joseph
Cobourg, ON

GOERING, John Winfield
Lawton
Port Hope, ON

HAAS, William Lloyd
London, ON

HARHAY, Walter
Etobicoke, ON

HARRAP, George T.
Kingston, ON

HILL, Alan Edwin
Orleans, ON

HO, Victor Wynne Terrence
Etobicoke, ON

HOEKSTRA, Enno Evert
Gravenhurst, ON

HOLSTEAD, Dan Mckay
Petawawa, ON

HORN, James Thomas
St. George, ON

HUDSON, Jeffrey Ronald
West Linn, OR

ISAJEV, Ilija
Etobicoke, ON

JANA, Kazimierz Bogdan
Aurora, ON

JEFFERY, William James
North York, ON

JONES, Donald Stephenson
Ottawa, ON

KHAN, Saulat Mohammad
Calgary, AB

KOENDERMAN, Paul Philip
Burlington, ON

KONZUK, Robert Keith
Regina, SK

KORAKIANITIS, Alexander
London, ON

KOSTER, Johannes Adrianus
Arichat, NS

KOWALSKI, Robert Paul
Nepean, ON

KROFCHAK, David
Copper Cliff, ON

LAVRENCH, William
Ottawa, ON

LEE, Stephen Pui Kung
Scarborough, ON

LEVIN, Alexander
Thornhill, ON

LIGHTFOOT, James Edwin
Sarnia, ON

LISTER, David Floyd
North York, ON

MAKINSON, David
Victoria, BC

MARAK, Edward John
Kincardine, ON

MARCOVITZ, Bernard
North York, ON

MARSH, John Raymond
Kitchener, ON

MASON, Gerald Percy
Toronto, ON

MATTHEWS, Edward
Franciscus
Oakville, ON

MCLEAN, Lynn Sterling
Zealandia, SK

MCLEAN, Neil Ferguson
Brampton, ON

METCALFE, Robert Paul
Whitby, ON

MILLER, Samuel Arthur
Tucson, AZ

MOEHL, Hermann
Niagara-on-the-Lake, ON

MUIR, John Wilson
Wasaga Beach, ON

MUKHEDKAR, Dilip
Ottawa, ON

MULCAHY, Michael William
Carp, ON

NAHMIA, Ahron
Maple, ON

NEMETHY, Balazs
Toronto, ON

NEWLAND, Richard Thomas
Sarnia, ON

NOVAK, Boris
Concord, ON

ODA, Akio
Etobicoke, ON

PHIPSON, William Arthur
Scarborough, ON

PILATERIS, Nicholas
Markham, ON

PREISS, Bruno Richard
Waterloo, ON

PYATT, Allan Grant
Deep River, ON

RACINE, Paschal Joseph
Lucien Yvan
Sainte-Anne-de-la-Pérade,
QC

REEVES, Richard John
Mississauga, ON

ROTMANN, Manfred Franz
Leberecht
North York, ON

ROY, Dominique Joseph
Louis
Saint-Laurent, QC

ROY, John Robert
South River, ON

RUMSEY, Bernard Francis
Alma, QC

RUPPERT, Arnold
Puslinch, ON

SAGOE-CRENTSIL, Kofi Asaa
Ottawa, ON

SERBANESCU, Nicolae
Serghie Laurentiu
Toronto, ON

SERDULA, Kenneth James
Deep River, ON

SHEARN, Gordon James
Mark
Toronto, ON

SHELTON, Victor George
Summerland, BC

SINNOTT, John Edmund
Windsor, ON

SLACK, Robert Morley
Kingston, ON

SMITH, Alison Marie
Stoney Creek, ON

SMITH, Douglas Deyell
Richmond Hill, ON

TAM, Lawton Tung-Hon
Scarborough, ON

TAYLOR, John Stanley
London, ON

THOMPSON, William James
Ottawa, ON

TISCHLER, George
North York, ON

TOPPING, Douglas Reginald
St. Albert, AB

TURNBULL, John Edward
Walkerton, ON

WALLACE, Andrew Patrick
Orleans, ON

WEAR, John Russel
King City, ON

WELLS, Edward Arthur
Sarnia, ON

WILSON, Frank Ritchie
Waterloo, ON

WINTER, Douglas Ralph
Burlington, ON

WINTER, Ronald Eugene
North York, ON

YE, Kerry Ki-Lap
North York, ON

YOUSSEF, Youssef Hanna
Sarnia, ON

YUNDT, Donald Alfred
Stratford, ON

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POLITICIANS RELY ON ENGINEERS TO PROTECT THE PUBLIC

By Howard Brown and Blake Keidan

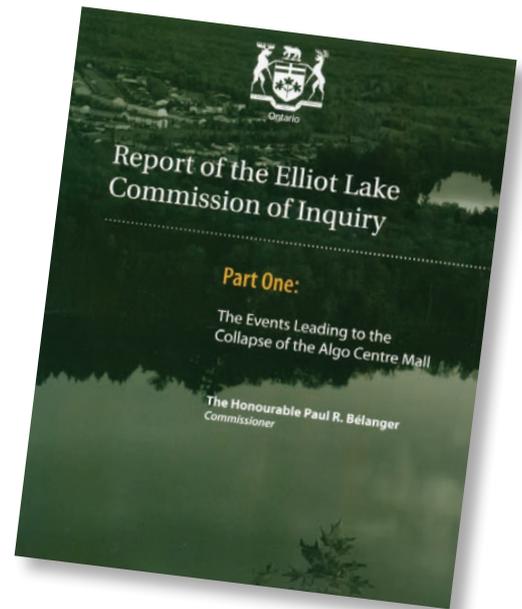
TWO RESIDENTS OF Elliot Lake lost their lives on June 23, 2012, when the Algo Centre Mall roof collapsed. It is a case that has attracted much attention from engineers, media and the general public because of its unique circumstances. Worse, it was a tragedy that could have been prevented.

It has been two years since the Honourable Paul Bélanger, commissioner of the Elliot Lake Inquiry, released his October 15, 2014 report on the incident. As a party with standing, PEO was provided a formal opportunity to recommend changes or additions to applicable legislation, regulations, standards and codes in relation to professional engineers and engineering, in areas relevant to the events leading up to the tragedy. PEO submitted 11 recommendations to the commission and was pleased that nearly all were adopted in the final report, including:

- developing a new performance standard for structural inspections of existing buildings, based on PEO's existing practice bulletin;
- mandating that a Structural Adequacy Report of existing buildings be prepared and sealed by professional engineers who are certified as structural engineering specialists; and
- releasing additional information about PEO practitioners disciplined for professional misconduct.

On the tragedy in Elliot Lake, Michael Mantha, MPP (Algoma-Manitoulin), NDP northern development and mines critic, shared that: "I've never forgotten the two members, Lucie and Dolores, of my community who were tragically taken from us in the Algo Centre Mall collapse. I want to do everything I can to ensure this never happens again. Hats off to Professional Engineers Ontario for their ongoing efforts to make Ontario a safer place to live. I have had the pleasure of meeting with PEO Registrar Gerard McDonald [P.Eng.] this past spring. I look forward to continuing the conversation and identifying ways all members of the legislature can support efforts to address gaps in our safety regime."

One of the recommendations in Commissioner Bélanger's report on the collapse of the Algo Centre Mall in Elliot Lake is that PEO should establish a system of mandatory continuing professional development (CPD). In fact, PEO council had already established a task force to make recommendations for the development of such a system. The Continuing Professional Development, Competence and Quality Assurance (CPDCQA) Task Force was formed in 2014, and presented its final report to PEO council on November 20, 2015. The report outlined the basic concept of a procedure for determining the CPD



requirements for individual licence holders. In February of this year, the Continuing Professional Competence Program (CP)² Task Force was formed to establish criteria and details for elements needed to operationalize the program. This task force is expected to present its recommendations to PEO council in November.

At the end of the day, it is important to remember that politicians rely on engineers to protect the public through regulation and continuous improvement. And based on the recommendations from the Elliot Lake Commission of Inquiry, we know government has an interest in what PEO is doing in these areas.

To remain relevant to the public, PEO is obligated to meet the public's ever increasing demand for accountability. Σ

Howard Brown is president of Brown & Cohen Communications & Public Affairs Inc., and PEO's government relations consultant. Blake Keidan is an account coordinator at Brown & Cohen Communications & Public Affairs Inc., and PEO's government relations coordinator.

NOVEMBER 2016

NOVEMBER 6-8

28th International Conference on Tools with Artificial Intelligence, San Jose, CA
www.ictai2016.com

NOVEMBER 6-9

International Symposium on Distributed Autonomous Robotic Systems, London, UK
dars2016.org

NOVEMBER 6-10

Nuclear Technology Show, San Diego, CA
www.ans.org/meetings/c_1



NOVEMBER 7-10

Sulphur International Conference & Exhibition, London, UK
www.crugroup.com/events/sulphur

NOVEMBER 9-10

Advanced Fuels for Sustainable Mobility, Aachen, Germany
www.fev.com/fev-conferences

NOVEMBER 9-11

Applied Nanotechnology & Nanoscience International Conference, Barcelona, Spain
www.premc.org/annic2016



NOVEMBER 9-11

IEEE-NIH 2016 Special Topics Conference on Healthcare Innovations & Point-of-Care Technologies, Cancun, Mexico
hpt.embs.org/2016

NOVEMBER 10-12

5th Sustainable Nanotechnology Organization Conference, Orlando, FL
susnano.org

NOVEMBER 11-17

International Mechanical Engineering Congress & Expo, Phoenix, AZ
www.asme.org/events/imece

NOVEMBER 13-18

International Symposium on the Foundations of Software Engineering, Seattle, WA
www.cs.ucdavis.edu/fse2016

NOVEMBER 14-15

Canadian Council for Public-Private Partnerships National Conference, Toronto, ON
www.pppcouncil.ca

NOVEMBER 17-18

International High-Performance Built Environments Conference, Sydney, Australia
www.sbe16sydney.be.unsw.edu.au



NOVEMBER 19

Ontario Professional Engineers Awards Gala, Mississauga, ON
www.ospe.on.ca



NOVEMBER 21-22

Project Financing in Oil & Gas, London, UK
www.smi-online.co.uk

NOVEMBER 29-DECEMBER 1

SPE Thermal Well Integrity & Design Symposium, Banff, AB
www.spe.org/go/thermal

NOVEMBER 29-DECEMBER 2

IEEE Real-Time Systems Symposium, Porto, Portugal
2016.rtss.org

NOVEMBER 30-DECEMBER 2

The Buildings Show (Construct Canada), Toronto, ON
www.constructcanada.com

DECEMBER 2016

DECEMBER 6-9

88th ARFTG Microwave Measurement Symposium, Austin, TX
www.arftg.org

DECEMBER 12-14

Conference on Decision & Control, Las Vegas, NV
cdc2016.ieeecs.org

JANUARY 2017

JANUARY 23-26

Mineral Exploration Roundup 2017, Vancouver, BC
roundup.amebc.ca



JANUARY 24-26

SPE Hydraulic Fracturing Technology Conference & Exhibition, The Woodlots, TX
exhibits.spe.org/hftc2017

PEO TO CREATE NEW PRACTICE GUIDELINE FOR ESDM REPORTS

508TH MEETING, SEPTEMBER 22, 23, 2016

By Michael Mastromatteo

COUNCIL HAS APPROVED the creation of a new subcommittee to develop a practice guideline and performance standard in the area of emission summary and dispersion modelling (ESDM). The motion stems from a request from the Ontario Ministry of Environment and Climate Change for PEO to develop best practices for engineers carrying out assessments of atmospheric contaminants from industrial facilities through preparation of ESDM reports, as required by O. Reg. 419/05 and the *Environmental Protection Act*. Currently, ESDM reports are reviewed by engineers at the environment ministry but there are concerns about the quality of the reports and the potential for no regulatory review process prior to operation.

The ministry is also looking to develop regulations that will require the preparation of ESDM reports be completed by professional engineers. Once it announces the changes to its regulation to mandate engineers as qualified persons to prepare ESDM reports, PEO will develop a performance standard to provide mandatory requirements for the work.

PEO's new subcommittee is expected to present a draft guideline and a policy statement for the proposed standard to the Professional Standards Committee by June 2017. The draft documents will be posted on PEO's website for public consultation with licence holders and stakeholders.

Council also approved plans to create a subcommittee to revise PEO's

Use of the Professional Engineer's Seal guideline, which was last updated in 2008.

STRATEGIC PLAN UPDATE

In a follow-up from deliberations of the June council retreat, council supported a strategic planning process to help the registrar prepare for a new strategic plan, required for the 2018-2020 period. The plan will be based largely on what was used to develop the current 2015-2017 Strategic Plan, involving consultation with council, committees, chapters, members, the government and other partners, and including a SWOT (strengths, weaknesses, opportunities and threats) analysis of the organization. Through this process, areas of divergence will hopefully be identified and addressed through the development of appropriate strategic initiatives.

From a governance perspective, a strategic plan enables council to set policies and goals to guide the organization, and provides a clear focus to the registrar and staff for program implementation and management. The initial draft of 2018-2020 Strategic Plan is expected to be considered by council at its September 2017 meeting.

At the council meeting, Registrar Gerard McDonald, P.Eng., presented the status of the current 2015-2017 Strategic Plan and pointed out that, as of September 2016, of the 116 strategies identified in the plan, 62 have been completed, and 54 are in progress.

PUBLIC INFORMATION CAMPAIGN

Another motion arising from the June council retreat involved development of a public information campaign promoting the value of professional engineering. Councillors were near unanimous in supporting a plan to develop the terms of reference and recruit members for a task force to examine such a campaign.

PEO's last involvement in an image marketing campaign was a joint venture with Engineers Canada and other constituent associations in 2001-2002 and 2008-2009. PEO also undertook an independent campaign in 1996-1998.

For this new campaign, it is expected that the 2017 draft budget will be adjusted by \$100,000 to engage an agency to assist with the plan's development, including messaging and determination of rollout costs for various delivery options. PEO's registrar will develop terms of reference and propose members for the new task force for consideration at council's February 2017 meeting. Σ

DECISION AND REASONS

In the matter of a hearing under the *Professional Engineers Act*, R.S.O. 1990, c. P.28; and in the matter of a complaint regarding the actions and conduct of KAROL KAROLAK, P.ENG., a member of the Association of Professional Engineers of Ontario.

A panel of the Discipline Committee met at the Association of Professional Engineers of Ontario (the association) at Toronto on April 25, 2016 to hear this matter. Mr. Karol Karolak, P.Eng. (the member), was not present, but was represented by Ms. Frances Mahon. The association was represented by Ms. Leah Price. At the outset of the hearing, Ms. Price advised the panel that the parties agreed on all of the facts and documents supporting a finding of professional misconduct. The parties disagreed, however, on the appropriate disposition in the circumstances.

PRELIMINARY ISSUES

The panel was asked to rule on two preliminary matters:

1. The member was not able to attend the hearing, and the parties requested that the matter proceed in the member's absence. In accordance with Rule 7 of the Discipline Committee's Rules of Procedure, the panel was provided with a Letter of Direction (the direction), which was signed by Mr. Karolak, and dated April 21, 2016. The direction instructed his lawyer, Ms. Mahon, to act on Mr. Karolak's behalf in the proceedings and stated his wish to plead guilty to professional misconduct on the basis of the allegations set out in the Notice of Hearing. The direction expressed Mr. Karolak's understanding of the nature and consequences of a guilty plea, and further set out his instructions to counsel regarding his position on the penalty he felt should be applied following such plea.
2. The parties had prepared an Agreed Statement of Facts, which referred to a Confidential Statement containing information relevant to the panel's consideration of the penalty. The parties advised that the Confidential Statement would be filed separately, and requested that the panel make an order under subsection 30(4.1) of the act that the Confidential Statement be sealed and the public excluded from the parts of the hearing dealing with the contents of the Confidential Statement.

In the result, the panel decided that the circumstances supported both preliminary requests. It accepted the signed direction and agreed that it was appropriate for the hearing to proceed, despite the member not being present in person or by video. Further, the panel agreed that the Confidential Statement contained sensitive information and made an order to seal the Confidential Statement, pursuant to subsection 30(4.1) of the act.

THE ALLEGATIONS

The specific allegations against the member are set out in the Statement of Allegations, which are attached to the Complaints Committee decision dated October 21, 2014. Specifically, the association alleges that Mr. Karolak is guilty of professional misconduct as defined in the *Professional Engineers Act* (the act) and Regulation 941 as follows:

- a) The member made statements against a member of the public that, having regard to all the circumstances, would reasonably be regarded by the engineering profession as disgraceful, dishonourable and unprofessional, amounting to professional misconduct under section 28(2)(b) of the act and section 72(2)(j) of Regulation 941; and
- b) The member was found guilty of an offence relevant to suitability to practice, amounting to professional misconduct under section 28(2)(a) of the act.

BACKGROUND FACTS

The background facts are straightforward, well supported by evidence, and are not in dispute.

Mr. Karolak held a licence as a professional engineer under the act from April 16, 1991 until August 24, 2015, at which time his licence was cancelled for non-payment of fees.

In or about 2005, Mr. Karolak was engaged in family court proceedings before Justice Nancy L. Backhouse, a justice of the Superior Court of Ontario. Justice Backhouse ruled against Mr. Karolak in those proceedings.

Beginning in approximately 2008 and continuing until at least 2011, Mr. Karolak made various offensive statements in emails and in Internet postings about Justice Backhouse's husband, Mr. Martin Teplitsky, QC (Mr. Teplitsky), a prominent Toronto lawyer, arbitrator and mediator. A number of these communications were signed "Karol Karolak, P.Eng."

The statements included, among other things, allegations that Mr. Teplitsky:

- is a "pimp";
- employs "prostitutes" and "working girls" and runs an "escort agency";
- uses his "working girls" to influence members of Toronto society;
- has prominent members of Toronto society in his back pocket; and
- videotapes members of the legal community engaged with prostitutes to gain influence over them.

On or about July 4, 2011, Mr. Teplitsky submitted a complaint to the association regarding the member's conduct. The complaint included a voluminous copy of the offending communications.

On July 9, 2011, Mr. Karolak wrote Mr. Teplitsky a lengthy email, in which he stated in part:

I hope that you have already read a copy of "Canadian Zyprexa Experiment File" that I have assembled few years ago, and I hope that you already know how easy it is to induce suicide in an intended victim by using well tried Zyprexa pump and dump procedure. Zyprexa Zydis is water soluble, tasteless and colourless when dissolved, so all that it takes is one person close to you and enough pills to alter serotonin production in your brain and you might die of your own hands without ever knowing what have (sic) hit you.

If you have not read a copy of "Canadian Zyprexa Experiment File" as of yet, please let me know and I will gladly send you a copy just so you also know how to dispose of undesirable people without leaving any trace that the murder was committed.

As a result of the July 9, 2011 email, Mr. Karolak was arrested and charged by the Peel Regional Police. He pleaded guilty on August 17, 2011 before the Honourable Justice W.B. Stead of the Ontario Court of Justice to the criminal offence of threatening death. Mr. Karolak was sentenced to 33 days of pre-trial custody and two years of probation. As well, an order was made prohibiting Mr. Karolak from communicating with Mr. Teplitsky or his family, and further prohibiting him from posting, on the Internet or any similar public network, postings about Mr. Teplitsky, his wife, or any other member of Mr. Teplitsky's immediate family.

On or around August 4, 2014, Mr. Karolak wrote to the association to provide a reply to Mr. Teplitsky's complaint. In his letter, Mr. Karolak repeated many of the offending statements and allegations against Mr. Teplitsky. He did not apologize for his behaviour or attempt to demonstrate any compunction for his criminal actions; instead, he made efforts to justify them.

PLEA BY THE MEMBER

The direction contained Mr. Karolak's instructions to counsel regarding his wish to plead guilty to professional misconduct on the basis of the allegations against him. The panel found that the direction was an expression of his understanding of the nature and consequences of a guilty plea and, therefore, accepted the member's plea, being satisfied that the member's admission was voluntary, informed and unequivocal.

FINDING OF PROFESSIONAL MISCONDUCT

The panel considered the evidence and, together with the member's plea, holds that the facts support a finding of professional misconduct. More specifically, the panel accepted that Mr. Karolak made statements about Mr. Teplitsky and his family that, having regard to all the circumstances, would reasonably be regarded by the engineering profession as disgraceful, dishonourable and unprofessional, amounting to professional misconduct under section 28(2)(b) of the act and section 72(2)(j) of Regulation 941.

Furthermore, the evidence confirmed that Mr. Karolak was convicted of knowingly uttering a death threat, contrary to section 264.1(1)(a) of the Criminal Code of Canada. The panel accepted that this was an offence relevant to suitability to practice, amounting to professional misconduct under section 28(2)(a) of the act.

SUBMISSIONS ON PENALTY

Neither party suggested that the appropriate disposition would allow the member to continue to be licensed as an engineer. The association submits that revocation of the member's licence is required, while the member requests that he be permitted to resign his licence with an undertaking to not seek reinstatement. Both parties agree, however, that regardless of the result, a summary of the facts and the penalty order shall be published in the Gazette, including reference to the member's name.

Importantly, there was also agreement from both parties that, despite Mr. Karolak's licence having been cancelled in August 2015, he is nevertheless still subject to the continuing jurisdiction of the association in respect of disciplinary action arising out of his professional conduct while a member, in accordance with section 22(1) of the act.

THE ASSOCIATION'S POSITION

The association seeks revocation of Mr. Karolak's engineering licence based on its assertion that it is the only penalty available that adequately protects the public interest. In particular, the association submits that, if the member's licence is not revoked, the legislation permits Mr. Karolak to demand reinstatement of his licence as a right.

The applicable statutory provisions are summarized as follows:

Membership

Act, s. 5(1)—Every person who holds a licence is a member of the Association subject to any term, condition or limitation to which the licence is subject.

Cancellation for default of fees

Act, s. 22(1)—The Registrar may cancel a licence...for non-payment of any fee prescribed by the regulations or bylaws...

Reinstatement

Act, s. 22(2)—A person who was a member of the association...whose licence...was cancelled by the Registrar under subsection (1) is entitled to have the licence...reinstated upon compliance with the requirements and qualifications prescribed by the regulations.

Regulation 941. s. 51.(1)—Subject to subsection (2), the following qualifications and requirements are prescribed for the reinstatement of the licence of a member who resigned:

1. Payment of the fees owing by the applicant for reinstatement to the Association at the time the applicant resigned, if any, and of the fees for the current year.
2. Payment of a reinstatement fee of \$230.
3. Production of evidence of good character.

Regulation 941. s. 51.1(1)—Subject to subsection (2), the following qualifications and requirements are prescribed for the reinstatement of the licence that was cancelled for non-payment of fees:

1. Payment of the fees owing by the applicant for reinstatement to the Association

at the time his or her licence...was cancelled and of the fees for the current year.

2. Production of evidence of good character, if the payments referred to in paragraph 1 are made more than one year after the cancellation.

Application for licence, etc., after revocation

Act, s. 37(1)—A person whose licence...has been revoked for cause under this act...may apply in writing to the Registrar for the issuance of a licence...but such application shall not be made sooner than two years after the revocation.

Reference to Discipline Committee

Act, s. 37(3)—The registrar shall refer an application under subsection (1)...in respect of a licence...to the Discipline Committee which shall hold a hearing respecting and decide upon the application, and shall report its decision and reasons to the Council and the applicant.

Counsel for the association explained that, at present, if Mr. Karolak were to reapply by August 24, 2016, which is within a year of the date his licence was cancelled, the legislation would permit him to demand reinstatement of his licence without having to do anything more than pay the applicable fees. If he were to reapply after one year and before August 24, 2017, which is two years from the date his licence was cancelled, or otherwise, if he were permitted to resign his licence, Mr. Karolak would need only pay the applicable fees and produce evidence of "good character"; a qualification counsel stated the association has been given no assistance in assessing.

If, however, the panel accepts that revocation is the appropriate remedy, Mr. Karolak would be required to wait a minimum of two years after the date of revocation before he could reapply for licensure. Further, a hearing would necessarily be held before a panel of the Discipline Committee, which would eliminate the requirement for the registrar to consider any evidence relating to the member's good character.

Taken together, the association holds that the revocation of Mr. Karolak's licence is the only option that will ensure that his licence remains revoked, at least until such time as his suitability for licensure is appropriately determined. Without this, counsel for the association submits that there is an apparent presumption of reinstatement, which goes squarely against the association's public interest mandate.

THE MEMBER'S POSITION

Mr. Karolak requests that he be allowed to resign his membership and further make an undertaking that he not reapply for a licence. The member submits that such a response serves the public interest in recognizing that he faces certain difficulties, as is outlined in the Confidential Statement.

The applicable statutory provisions are as follows:

Resignation of membership

Act, s. 5(2)—A member may resign his or her membership by filing with the Registrar a resignation in writing and his or her licence is thereupon cancelled, subject to the continuing jurisdiction of the Association in respect of any disciplinary action arising out of the person’s professional conduct while a member.

Powers of the Discipline Committee

Act, s. 28(4)(c)—Where the Discipline Committee finds a member of the Association... guilty of professional misconduct or to be incompetent it may, by order, accept the undertaking of the member...to limit the professional work of the member...in the practice of professional engineering to the extent specified in the undertaking.

DECISION AND ORDER

The panel makes the following order with respect to penalty:

1. The member’s engineering licence shall be revoked, pursuant to section 28(4)(a) of the act; and
2. The order of the panel, with the reasons therefor, shall be published in the Gazette, and shall include the name of the member, pursuant to section 28(5) of the act.

REASONS FOR PENALTY DECISION

In making its decision on the penalty, the panel carefully considered the Brief of Authorities and the submissions of counsel. The panel also paid close attention to the particular circumstances that were described in the Confidential Statement, and the member’s letter of August 4, 2014 to the association in response to the notice of complaint.

The panel considers the mitigating factors in this case to include the following:

1. Mr. Karolak has been diagnosed with an illness. The symptoms of this illness prevented him from attending the hearing in person and, although he was not diagnosed or treated during the period he perpetuated the conduct in question, the panel accepts that the effects of his illness are likely to have caused or contributed to his behaviour and actions during that time.
2. Mr. Karolak appears to have co-operated with the association by participating in the preparation of an Agreed Statement of Facts and acknowledging, through his guilty plea, his past misconduct.
3. Mr. Karolak also admitted the facts in his 2011 criminal proceedings and pleaded guilty to the charge of uttering a threat. He spent 33 days in prison in answer to that conviction and complied with the conditions that were imposed upon him.

The following are identified as aggravating factors:

1. In his August 4, 2014 reply to the association, Mr. Karolak repeated many of his allegations against Mr. Teplitsky and did not indicate any remorse, introspection or willingness to retract any of the statements, which led to the within discipline proceedings. He did not apologize for his actions but, rather, he attempted to justify his previous misconduct.
2. Mr. Karolak did not take any voluntary steps to remove the offending materials posted, or otherwise attempt to make restitution to Mr. Teplitsky or his family.
3. Mr. Karolak’s August 4, 2014 letter was written during a period when he was allegedly undergoing treatment for, and experiencing some improvement with, his illness.

The penalty order of a professional discipline panel is intended to satisfy several purposes, including protection of the public, general and specific deterrence, rehabilitation of the member, and upholding the reputation of the profession. In this case, the member is unwell and, by his own volition, he has agreed not to continue to practise professional engineering. In fact, the penalty he suggests involves making an undertaking that would prevent him from ever reapplying for licensure which, if adhered to, would have a longer-lasting and more permanent effect than revocation by order of this tribunal. In such circumstances, specific deterrence, or professional rehabilitation of the member, is effectively moot.

So, too, is the goal of general deterrence. The panel was provided with numerous precedents that would support an order for revocation of the member’s licence. Such a strong penalty sends a message to the public that the engineering profession does not tolerate such behaviour and seeks to deter professional engineers from behaving in this way. However, the panel accepts that there are mitigating circumstances worthy of consideration. Because these circumstances are described in the Confidential Statement ordered sealed and because the panel’s decision on penalty does not hinge on general deterrence, we will forego the details herein.

The remaining consideration and overarching objectives for this panel’s penalty order is, therefore, to ensure the protection of the public and support public confidence in the integrity of the profession. In answer to the former concern and, at first glance, the panel finds that the public would adequately be protected through either revocation or resignation of the licence since neither scenario would see the member as a licensed or practising engineer. On the one hand, revocation would ensure that Mr. Karolak could not have his licence reinstated for a minimum of two years. On the other hand, the proposed undertaking would involve that he not (ever) seek reinstatement.

However, if Mr. Karolak is granted the penalty he seeks, the panel would be placing the onus on him to comply with the undertaking and would rely on his commitment thereto. Such a disposition requires that the panel place trust in the member. Ms. Mahon warned that we cannot operate under a presumption that Mr. Karolak might breach the undertaking, which the panel accepts. Mr. Karolak complied with his court order, and there was no evidence to suggest that he breached any conditions following his criminal conviction. At the same time, the panel heard evidence, which seriously calls into question Mr. Karolak's judgment. In particular, the panel finds that, by repeating many of the allegations against Mr. Teplitsky in his reply to the association on August 4, 2014, Mr. Karolak perpetuated the campaign of defamation and abuse against Mr. Teplitsky. In doing so, the member continued to engage in discomfiting conduct, despite the fact that he was undergoing treatment and allegedly experiencing some improvement therefrom at that time. This suggests to the panel that the member may not have learned from his past missteps, and leaves doubt as to whether the member's judgment—with or without treatment—can be trusted.

It follows that, if Mr. Karolak were permitted to resign his licence and he later decided to breach the undertaking by seeking reinstatement under subsection 51.(1) of the regulation, he could be readmitted to the profession, despite that his suitability to practice might still be in question. Certainly, both the breach of the panel's order and Mr. Karolak's actions leading up to the order would be reviewed and considered by the registrar but, as counsel for the association articulated, there is little guidance to inform the registrar with respect to what constitutes evidence of good character. By contrast, if Mr. Karolak's licence is revoked and he later seeks reinstatement, he would be restricted from reapplying until after two years has elapsed and, more significantly, he would be required to have his application brought and heard before a panel of the Discipline Committee. Such an inquiry, we expect, would remove the focus from an obscure consideration of the member's good character and could, instead, or additionally, concentrate on a review of the member's reformation, including a demonstration of remorse for his past misconduct.

Furthermore, the panel's decision to revoke Mr. Karolak's licence is based on its finding that such an order is necessary to maintain the reputation and integrity of the profession. On this point, the panel was guided, in part, by *Bolton v. Law Society*, [1994] 1 W.L.R. 512 (C.A.), which was reproduced in paragraph 73 of *Kazman v. The Law Society of Upper Canada*, 2008 ONLSAP 7 (CANLII). *Bolton* applies in the context of Law Society Discipline Tribunals, and states that the most fundamental purpose of a panel's order is the collective reputation of the accused licensee's peer group:

Because orders made by the tribunal are not primarily punitive, it follows that considerations which would ordinarily weigh in mitigation of punishment have less effect on the exercise of this jurisdiction than on the ordinary run of sentences imposed in criminal cases. It often happens that a solicitor appearing before the tribunal can adduce a wealth of glowing tributes from his professional brethren. He can often show that for him and his family the consequences of striking off or suspension would be little short of tragic. Often he will say, convincingly, that he has learned his

lesson and will not offend again...and [he] may also be able to point to real efforts to...redeem his reputation. All these matters are relevant and should be considered. But none of them touches the essential issue, which is the need to maintain among members of the public a well-founded confidence that any solicitor whom they instruct will be a person of unquestionable integrity, probity and trustworthiness...The reputation of the profession is more important than the fortunes of any individual member. Membership of a profession brings many benefits, but that is a part of the price.

While the evidence in this case indicates that mitigating circumstances may have existed during the period when the member was engaging in professional misconduct, Mr. Karolak's response on August 4th demonstrates that the circumstances may not have been really exceptional after all. Counsel for Mr. Karolak submits that his guilty plea is a significant expression of his remorse. She claimed that this, together with his willingness to co-operate in compiling an Agreed Statement of Facts, helped to speed up the disciplinary process, and indicated an acknowledgement and acceptance by Mr. Karolak of his past wrongdoings. We are not convinced of this. Even after receiving treatment, Mr. Karolak appears to have demonstrated little or no remorse for his actions. He has not taken any voluntary steps to remove the offending materials or make restitution to Mr. Teplitsky or his family. A decision to order the undertaking rather than revoke the licence would, therefore, confuse the public and undermine their trust in the profession. Mr. Karolak engaged in serious professional misconduct and is deserving of a serious penalty.

The potential damage to public confidence in the profession by not ordering the revocation would far outweigh any possible benefit of an alternative penalty. Accordingly, we find that the goals of protecting the public and enhancing the public's confidence in the profession compel such a penalty.

John Vieth, P.Eng., signed this Decision and Reasons for the decision as chair of the discipline panel and on behalf of the members of the discipline panel: Paul Ballantyne, P.Eng., Santosh Gupta, P.Eng., Charles Kidd, P.Eng., and Evelyn Spence, LLB.

DECISION AND REASONS

In the matter of a hearing under the *Professional Engineers Act*, R.S.O. 1990, c. P.28; and in the matter of a complaint regarding the conduct of HOUSTON T. ENGIO, P.ENG., a member of the Association of Professional Engineers of Ontario, and HOUSTON ENGINEERING & DRAFTING INC., a holder of a Certificate of Authorization.

1. This matter came before a panel of the Discipline Committee of the Association of Professional Engineers of Ontario (the association or PEO) for hearing on April 30, May 1, 8 and 9, 2013.

THE COMPLAINTS COMMITTEE'S REFERRAL DECISION AND THE ASSOCIATION'S ALLEGATIONS

2. Mr. Engio was licensed as a professional engineer under the *Professional Engineers Act*, R.S.O. 1990, Chapter P.28 (the act). Houston Engineering & Drafting Inc. (Houston) held a Certificate of Authorization issued under the act. Mr. Engio and Houston are collectively referred to as the "respondents."
3. In a decision dated March 1, 2010, the Complaints Committee referred the following matter to the Discipline Committee: "The CTBD (City of Toronto building department) was concerned regarding the lack of calculations and support for the shoring plan that was submitted by Engio. All communications and correspondence generated by Engio were very difficult to understand. It appeared that Engio withheld an appropriate response to the CTBD concerns due to a payment dispute and scope of work issues with SPH (SkyPoint Hi-Rise Ltd.). Reportedly, some of Engio's drawings were "shop drawings" and not intended for submission to the CTBD. There were concerns about the quality of Engio's work and significant safety issues regarding the shoring plan."
4. The association alleged that the respondents were guilty of professional misconduct as defined in section 28(2)(b) of the act and Regulation 941, in that:
 - 1) They failed to comply with two guidelines issued by the association:
 - (i) *Professional Engineers Providing General Review of Construction as Required by the Ontario Building Code*; and
 - (ii) *Guideline for Professional Engineers—Temporary Works*.
 - 2) They committed negligence, contrary to section 72(2)(a) of Regulation 941;
 - 3) They failed to make reasonable provision for the safeguarding of the life, health or property of the persons affected by their work, contrary to section 72(2)(b) of Regulation 941;

- 4) They failed to make reasonable provision for complying with applicable statutes, regulations, standards, codes and bylaws contrary to section 72(2)(d) of Regulation 941;
- 5) They undertook work they were not competent to perform, contrary to section 72(2)(h) of Regulation 941; and
- 6) They were guilty of conduct or an act relevant to the practice of professional engineering that, having regard to all the circumstances, would reasonably be regarded by the engineering profession as unprofessional, contrary to section 72(2)(j) of Regulation 941.

SUMMARY OF THE PANEL'S FINDINGS

5. For reasons set out in detail below, the panel concluded that the respondents:
 - 1) Failed to comply with the two guidelines, as alleged by the association;
 - 2) Engaged in professional misconduct by being negligent, contrary to section 72(2)(a) of Regulation 941;
 - 3) As a designer and site reviewer, engaged in professional misconduct by failing to make reasonable provision for the safeguarding of the life, health or property of others, contrary to section 72(2)(b) of Regulation 941;
 - 4) Engaged in professional misconduct by failing to make responsible provision for complying with application laws and rules, contrary to section 72(2)(d) of Regulation 941; and

- 5) Engaged in unprofessional conduct, contrary to section 72(2)(j) of Regulation 941.

SUMMARY OF THE EVIDENCE

6. This proceeding relates to the construction at the sites of 799 and 801 College Street, Toronto.
7. Before the commencement of the hearing on May 1, 2013, Mr. Engio had asked for, and was granted, adjournment twice: the first time for medical reasons, and the second time for retaining new legal counsel. The second adjournment request was made on December 17, 2012, the first day of the four-day hearing. It was made without any advance notice. Furthermore, Mr. Engio's new counsel did not appear before the panel to make the adjournment request. The panel's independent legal counsel reached Mr. Engio's new counsel to confirm that he was recently retained by Mr. Engio. The last-minute adjournment request was very inconvenient for the five members on the panel, some of whom had travelled from out of Toronto to attend the hearing. In any event, the panel agreed to adjourn the hearing for the second time, and ordered that no further adjournment would be granted, barring "extraordinary circumstances, supported by admissible and sufficient evidence." The hearing was rescheduled to May 1, 8 and 9, 2013.
8. The hearing commenced, as scheduled, on May 1, 2013. The panel was advised on the day of the hearing that Mr. Engio would be self-represented. Mr. Engio attended the hearing on May 1, 2013, and conducted cross-examination of the two fact witnesses produced by the association. At the end of May 1, 2013, Mr. Engio suddenly appeared to collapse from his chair and was lying on the floor. A call was made to 911, and a medical team arrived on site to take Mr. Engio to a Toronto hospital for check-up. On May 8, 2013, Mr. Engio did not show up for the hearing. Instead, he requested another adjournment relying on a "medical note" dated May 3, 2013, which purported to be from a walk-in clinic in Kitchener and stated that he should be "off work" for three weeks for "job related stress." The note made no mention of the discipline hearing; neither did it indicate that he was medically unfit to attend the hearing. Even though Mr. Engio was taken by the medical emergency response team to a nearby hospital on May 1, 2013, Mr. Engio did not produce any medical note or check-out report from that hospital. After reviewing and considering the note from the walk-in clinic, the panel was satisfied that there was no sufficient basis to adjourn the hearing the third time, and that it was appropriate to continue the hearing in his absence. The chair of the panel advised Mr. Engio's friend, Mr. Bob Balog, who had been present throughout the hearing, of the decision to proceed with the hearing and asked him to advise Mr. Engio accordingly.
9. The association produced four witnesses: John Neilas, Bob McKeown, Tim Orpwood and Mr. Daria Khanchi (expert witness).
10. Mr. Neilas is vice president for SkyPoint Hi-Rise Ltd. (SkyPoint). SkyPoint acquired the property at 799 College Street in 2007 for the development of a condominium building. This was SkyPoint's first development project, and it had hoped that the construction would be completed within two years. For reasons that gave rise to this discipline proceeding, at the time of the hearing in 2013, the construction was not yet completed or ready for occupancy.
11. SkyPoint hired Isherwood and Associates, which prepared shoring drawings based on which, on August 7, 2008, the City of Toronto issued a partial permit for foundations and shoring at 799 College Street.
12. At some point, SkyPoint discovered that the property at 799 College Street shared a single wall with 801 College Street. For cost reasons, SkyPoint also changed the building material from steel to concrete, which effectively changed the structure of the building.
13. SkyPoint retained Houston around November 2008 as a contractor for the demolition of the old structure at 799 College Street. He was subsequently retained for the shoring work of the construction project. Mr. Engio prepared two drawings, SK7 and SK8, and submitted them to the City of Toronto on March 9, 2009 in an application for a revision to the partial permit.
14. Mr. McKeown was the deputy building officer for the City of Toronto and had been a professional engineer for 27 years in Ontario. At all material times, his primary responsibility was to review plans to ensure they were in compliance with the Ontario Building Code and other applicable rules and regulations. At any given time, he dealt with 30-50 active applications for building permits. The panel accepted that Mr. McKeown was very experienced with assessing plans against the Ontario Building Code.

15. Mr. McKeown testified that, as a building officer, he found the two drawings SK7 and SK8 deficient in every regard. His complaint was that the drawings were incomplete and the design could not resist applied loads. He advised SkyPoint's representative that the substandard submission made by Mr. Engio would not be reviewed.
16. On April 29, 2009, Mr. Engio submitted two new drawings, SK1 and SK2, to the city. On April 30, 2009, Mr. McKeown issued an examiner's notice identifying deficiencies in SK1 and SK2, as well as an order to comply. Mr. Engio responded with two letters dated May 3 and 5, 2009, which did not address any of the itemized deficiencies. In the meantime, he allowed the shoring work and the construction to be continued without a permit.
17. On March 25, 2009, the City of Toronto building office received a permit application to reconstruct the west exterior wall at 797 College Street, which was necessary due to the construction project at 799 College Street. Mr. Engio submitted unsealed and inadequate drawings. It was most unusual that he also provided a General Review Commitment Certificate by signing off on all disciplines, including architectural, mechanical, structural, electrical, fire protection and plumbing (even though no single engineer could cover all of these disciplines), and Existing Life Safety Systems for Building forms (even though he did not have sketches of the building).
18. On May 4, 2009, Mr. McKeown issued another examiner's notice itemizing the deficiencies on the permit application with respect to 797 College Street, and a stop-work order. The responses from Mr. Engio were stamped with his engineering seal, but completely unresponsive and incoherent.
19. Mr. McKeown testified that, as a building officer with more than 25 years of review experience, he had never seen an engineering design for a commercial shoring project that was as inadequate as the ones submitted by Mr. Engio.
20. Mr. Orpwood had been a licensed professional engineer since 1979. He received a bachelor of geological engineering from the University of Toronto. He had been a principal of an engineering firm called Terraprobe Design Ltd., and ran the division in charge of shoring designs. He was retained by SkyPoint in May 2009 with respect to the construction project at 797 College Street. Mr. Orpwood visited the site, reviewed the work and the drawings authored by Mr. Engio and concluded that the system, as designed and partially constructed under Mr. Engio's supervision, was unsafe, lacked structural integrity, failed to provide for the real form of the wall, and precluded the placing of the drainage necessary for the condominium building.
21. Mr. Khachi was presented by the association as an expert witness. He received a bachelor of civil engineering from McMaster University in 1985, and a master of engineering at the University of British Columbia in 1989. He had been a licensed engineer since 1990. Mr. Khachi had over 20 years of experience in the structural design and rehabilitation of buildings. He is a principal at an engineering firm called Dialog, and had performed structural analysis and design of many commercial buildings.
22. The panel accepted Mr. Khachi's qualifications as an expert to testify about Mr. Engio's engineering work in this proceeding. Mr. Khachi identified at least 17 errors, omissions and deficiencies in Mr. Engio's drawings that would present a significant risk to public safety and encroach upon neighbouring public properties. Mr. Khachi testified that all of Mr. Engio's drawings failed to identify the applicable codes and standards, geotechnical parameters or design loads. Mr. Engio's drawings lacked the necessary details, such as connection and foundation details. In Mr. Khachi's opinion, the soldier piles and its base connection, as designed by Mr. Engio, were significantly overstressed and could result in catastrophic failure. It is not necessary to set out in detail all of the engineering deficiencies identified by Mr. Khachi. It suffices to say that, in his opinion, Mr. Engio's designs were unworkable and dangerous.

REASONS FOR THE PANEL'S FINDINGS

23. As the regulator for professional engineers in Ontario, in order to fulfill its statutory mandate to protect the public interest, the association produces guidelines to educate both members and licence holders about standards of practice.

24. The association alleged that two guidelines are applicable in this proceeding and have not been complied with by the respondents: *Guideline for Professional Engineers–Temporary Works* (guideline for temporary works); and *Guideline for Professional Engineers Providing General Review of Construction as Required by the Ontario Building Code* (guideline for building code).
25. The guideline for temporary works sets out the basic requirements, procedures and duties professional engineers shall consider in order to achieve the proper design and construction of temporary works until the permanent works have been completed. Pursuant to section 2, drawings for temporary works must clearly communicate design requirements and installation details to temporary works contractors, and include a list of enumerated details. None of those details were included in Mr. Engio’s drawings.
26. According to the guideline for building code, a professional engineer must refuse to review work where construction of a building is proceeding without building permits. The guideline sets out a number of steps that an engineer must take when he is hired to review a building project, and finds that no building permit has been issued for the work. In this case, Mr. Engio allowed the construction to proceed without a proper permit and, worse, in the face of a stop-work order issued by the city’s building officer. This is a clear violation of the guideline for building code.
27. As such, the panel finds that the respondents engaged in professional misconduct by failing to comply with the two guidelines and were negligent, contrary to section 72(2)(a) of Regulation 941.
28. Section 72(2)(b), (d) and (j) of Regulation 941 provides that the following conduct constitutes “professional misconduct.”
- (b) failure to make reasonable provision for the safeguarding of life, health or property of a person who may be affected by the work for which the practitioner is responsible,
 - (d) failure to make responsible provision for complying with applicable statutes, regulations, standards, codes, bylaws and rules in connection with work being undertaken by or under the responsibility of the practitioner,
 - (j) conduct or an act relevant to the practice of professional engineering that, having regard to all the circumstances, would reasonably be regarded by the engineering profession as disgraceful, dishonourable or unprofessional...
29. In light of the evidence summarized above, the panel finds that the respondents failed to comply with the Ontario Building Code, and irresponsibly produced drawings that had no engineering details or provisions for public safety, contrary to section 72(2)(b) and (d) of Regulation 941. The respondents’ conduct would reasonably be regarded by the engineering profession as unprofessional, contrary to section 72(2)(j) of Regulation 941.
30. The association alleged that the respondents undertook work that they were not competent to perform, contrary to section 72(2)(h) of Regulation 941. However, no evidence was introduced at the hearing about Mr. Engio’s education, prior experience or competence (or lack thereof). As such, the panel finds that the association has not made out its case against the respondents with respect to section 72(2)(h).
31. This matter shall be relisted for hearing to hear submissions from the parties with respect to the appropriate penalty arising from the panel’s findings in this matter.

Michael Wesa, P.Eng., signed this Decision and Reasons for the decision as chair of this discipline panel and on behalf of the members of the discipline panel: Ishwar Bhatia, P.Eng., Rebecca Huang, LLB, Virendra Sahni, P.Eng., and Henry Tang, P.Eng.

DECISION AND REASONS ON PENALTY

In the matter of a hearing under the *Professional Engineers Act*, R.S.O. 1990, c. P.28; and in the matter of a complaint regarding the conduct of HOUSTON T. ENGIO, P.ENG., a member of the Association of Professional Engineers of Ontario, and HOUSTON ENGINEERING & DRAFTING INC., a holder of a Certificate of Authorization.

1. After the Decision and Reasons were issued on July 1, 2015 (the decision), the panel decided to conduct the penalty hearing in writing, pursuant to Rule 7.1 of the Rules of Procedure of the Discipline Committee. A letter was sent to Mr. Houston T. Engio (Engio), Houston Engineering & Drafting Inc. (HEDI), and the Association of the Professional Engineers of Ontario (PEO) requesting written submissions on penalty.
 2. The Tribunal Office has made numerous unsuccessful efforts to locate Engio and HEDI (the defendants). The decision and the letter were sent through Canada Post to the address on file with the registrar, and were returned. The Tribunal Office then attempted to serve Engio personally through a process server at the registered address. The occupant advised the process server that Engio did not reside at that address. The registrar had never been advised of any change in address by the defendants. The Tribunal Office also emailed Engio at the email address on file with the registrar, but has received no response.
 3. Accordingly, the panel only has the written submissions on penalty filed by PEO.
- PEO'S PENALTY SUBMISSION**
4. PEO seeks the following penalties:
 - a) Pursuant to subsection 28(4)(a) of the *Professional Engineers Act* (the act), revoke Engio's licence and HEDI's Certificate of Authorization;
 - b) Pursuant to subsection 28(5) of the act, require that the panel's decision and reasons for decision to be published in PEO's official publication, with reference to names; and
 - c) Pursuant to subsection 28(4)(j) of the act, require the defendants to jointly and severally pay costs to PEO in the amount of \$20,000, within 30 days of the date of the penalty decision.
 5. PEO's penalty submissions referenced Engio's previous conviction of professional misconduct, under which he was found guilty of breach of sections 72(2)(a) of Regulation 941 (the prior conviction). The misconduct in that proceeding included, but not limited to, providing misleading information under oath, and falling below the standards of practice expected from a professional engineer in his communications with clients. In addition to being reprimanded and receiving a six-week licence suspension, Mr. Engio and HEDI were required to complete the professional practice examination (PPE) within 14 months of the date of hearing.
 6. After the suspension was completed, Mr. Engio made no attempt to complete the PPE as ordered. As a result, his licence was suspended on January 8, 2013.
 7. PEO listed the following eight factors to support its argument that the defendants are ungovernable and, therefore, deserve to have licences revoked:
 - (1) Serious misconduct of relatively lengthy duration;
 - (2) There is a prior discipline history;
 - (3) There is no character evidence;
 - (4) There is a complete lack of remorse;
 - (5) The defendants have exhibited complete unwillingness to be governed by PEO;
 - (6) Engio provided doctors' notes that were unrelated to the issues before the panel in his multiple attempts to adjourn and evade the hearing;
 - (7) The defendants have taken no remedial steps, with likelihood of re-offence; and
 - (8) The defendants have been unco-operative, and have not addressed the issues that gave rise to the charges in this proceeding.
 8. In the event that the panel does not find that the defendants are ungovernable, PEO argues that revocation is still the proper remedy because of Mr. Engio's misconduct

in the prior conviction and his misconduct giving rise to the charges in the current proceedings.

9. PEO seeks costs in the amount of \$20,000 on the basis that the defendants' behaviour in the current proceedings created unnecessary costs and delays.

PENALTY DECISION

10. After considering PEO's submissions, and for the following reasons, the panel rules as follows:
 - a) Revoke Engio's licence and HEDI's Certificate of Authorization;
 - b) The panel's Decision and Reasons be published in PEO's official publication, with reference to names; and
 - c) The defendants jointly and severally pay costs to PEO in the amount of \$15,000, within 30 days of the date of this order.

REASONS FOR THE PENALTY DECISION

11. As correctly stated by PEO, penalty serves five objectives:
 - (1) Protection of the public;
 - (2) General deterrence;
 - (3) Specific deterrence;
 - (4) Maintenance of the reputation of the profession in the eye of the public; and
 - (5) Rehabilitation.
12. The significance of each factor varies from case to case depending on many factors, such as the nature and seriousness of the misconduct, the defendants' blameworthiness, and risk to public safety.
13. In this case, the objectives of protection of the public and deterrence are of paramount importance.
14. The defendants engaged in misconduct that directly threatened the safety of others working on the project and the public. Even though Engio was told by the deputy building officer of the City of Toronto that his drawings were deficient and could not resist applied loads, he ignored the warning and allowed the shoring work and the construction to be continued

without a permit. In support of a permit application, he signed off on all disciplines in the General Review Commitment Certificate, despite the fact that no single engineer could cover all of these disciplines. Engio then did not respond to the stop-work order issued by the city.

15. Based on the expert evidence at the hearing, the numerous errors, omissions and deficiencies in Engio's designs would present a significant risk to public safety, encroach upon neighboring public property and result in catastrophic failure. Mr. Engio's designs were simply unworkable and dangerous.
16. In light of the serious and dangerous deficiencies in Engio's work, the first and foremost objective is to protect public safety. Given the prior conviction and Engio's failure to take the PPE as previously ordered, the panel accepts PEO's submission that Engio's licence and HEDI's Certificate of Authorization be revoked.
17. Because licence revocation is an appropriate remedy in this case, there is no need for the panel to decide whether Engio was governable.
18. Both general deterrence and specific deterrence are important and relevant objectives in this case. Members in the engineering profession should know that it is a privilege to practise engineering as a P.Eng., and that the privilege comes with responsibilities. No engineers should be permitted to engage in conduct or omission that disregards applicable codes and bylaws such that public safety is put at risk. To generally and specifically deter such dangerous behaviour, the panel accepts PEO's submission that the panel's Decision and Reasons be published in PEO's official publication, with reference to names.
19. Anytime a P.Eng. or licence holder engages in dangerous conduct, it has the potential to erode the public's confidence in the profession. By denouncing the defendants' misconduct and ordering the publication of the Decision and Reasons, the panel believes

that it will help maintain the reputation of the engineering profession as far as the defendants' misconduct is concerned.

20. The panel has also considered the objective of rehabilitation. The panel is concerned that Engio showed grave disrespect for not attending the entire hearing without valid reasons, and for not informing the registrar or the tribunal of his whereabouts after the hearing.
21. Although the panel is not convinced that rehabilitation could be achieved in this case, we note that section 37 of the act states that he may reapply for his licence after two years of revocation. If at that time he has completed the PPE as previously ordered and is able to convince a panel of the Discipline Committee that he is able to engage in the practice of professional engineering with competence and integrity, then the penalty of revocation will have served a rehabilitative purpose.
22. On the issue of costs, the panel agrees with PEO that the defendants' conduct during the hearing has caused multiple adjournments and significant delays. The defendants made the first adjournment request with a medical note presented by a friend. The note did not say that Engio could not attend hearings, but because it appeared to be a medical note, the panel accepted it on its face value and adjourned the hearing. The defendants made the second adjournment request suggesting that he had just retained counsel. When the hearing resumed the third time, he came without a legal representative. On May 9, 2015, the hearing had to be adjourned when Engio lay down on the ground in the middle of the hearing. No medical note was presented about his

medical condition (if any), even though such request was communicated to him through his friend who was at the hearing. He never came back to attend the rest of the hearing. In the circumstance of this case, the panel is concerned that Engio may have been trying to delay or evade the hearing. This is an appropriate case to order costs in favour of PEO. PEO asked for \$20,000. The panel considered this request and concluded that \$15,000 would be reasonable. Therefore, the panel rules that the defendants should, jointly and severally, pay PEO costs in the amount of \$15,000, within 30 days.

Michael Wesa, P.Eng., signed this Decision and Reasons on Penalty for the decision as chair of this discipline panel and on behalf of the members of the discipline panel: Ishwar Bhatia, P.Eng., Rebecca Huang, LLB, Virendra Sahni, P.Eng., and Henry Tang, P.Eng.

Please report any person or company you suspect is violating the act. Call the PEO enforcement hotline at 416-840-1444, or 800-339-3716, ext. 1444. Or email your questions or concerns to enforcement@peo.on.ca.



Inspiring
CONFIDENCE

PEO actively works to maintain public trust in the engineering profession. Here's what the regulator is doing.

BY SHARON ASCHAIK

In Canada, engineering is generally viewed as a trusted and respected profession. In survey after survey, Canadians rank engineering as a valued and prestigious occupation, alongside doctors, pharmacists or architects. The most recent example is the 2016 Leger Profession Barometer. Among the Canadians surveyed, 79 per cent said they trust engineers and 89 per cent said they would encourage a young person to become an engineer. In a country where buildings stand solidly for generations, our utilities operate smoothly and our telecommunication systems keep us connected, people trust that engineers know how to create infrastructure that lasts and keeps us safe.

In Ontario, PEO never treats as a given the public's confidence in the engineering profession. The regulator actively works to maintain and strengthen this confidence. A major part of this work involves ensuring its 85,000 licence and certificate holders understand and follow the requirements of the *Professional Engineers Act* (PEA). Sometimes, this involves clarifying certain practice requirements to engineers, or addressing any gaps in the PEA by introducing new performance standards. At other times, it means holding licence holders accountable when they knowingly or unknowingly break its laws, or taking formal action against individuals who falsely present themselves as licensed engineers. Finally, PEO also focuses on creating awareness about the important work of engineers through coordinated outreach with elected officials and with the public, two groups whose perceptions about engineering are critical to the profession's status in Ontario.

KEEPING HIGH STANDARDS

As a self-regulator, PEO works to ensure that the practice of engineering in Ontario meets standards and complies with the laws of the profession. The PEA gives PEO's council the authority to establish standards of practice that must be adhered to by all practitioners. Developed by PEO's Professional Standards Committee, these performance standards provide licence holders with benchmarks that help them determine the appropriate level of service they need to provide. The performance standards describe the required outcome of an engineer's activities, and leave the method for accomplishing these goals to the discretion of the engineer. As the engineering profession continues to evolve, and as incidents and issues relating to engineering practice arise, PEO creates new performance standards or updates existing ones to provide further clarification on an engineer's professional obligations. Among the new standards PEO has introduced in recent years are those relating to building construction, enlargement, alteration and demolition; drinking water system evaluation; environmental site assessment reports; and tower crane inspections.

PEO strives to help practitioners meet these performance standards by developing practice guidelines that clarify certain areas of practice. These guidelines define the roles and responsibilities of an engineer and explain what is expected of a reasonable and prudent engineer practising in a particular area. In 2014, PEO introduced the practice guideline *Engineering Evaluation Reports for Drinking Water Systems*, which came about after the E. coli contamination of the water supply in Walkerton, Ontario. Earlier this year, PEO issued the guideline *Forensic Engineering Investigations*, to clarify that licence holders must avoid biases when providing forensic engineering services.

"The process for developing both performance standards and guidelines is always evidence-based, meaning there has to be evidence of a problem. The guideline is developed



as a way to provide clarity about a licence holder's responsibilities under the act," says José Vera, P.Eng., manager of standards and practice at PEO.

Sometimes, the evidence for creating new performance standards and practice guidelines comes from the input of licence holders through emails to PEO or through calls to its practice advisory team. PEO tracks these calls and emails to help it determine if there is enough need for a new standard or guideline. Vera says about one-fifth of inquiries from members relate to the proper use of the engineering seal, which is why PEO council recently approved plans to create a subcommittee to revise the *Use of the Professional Engineer's Seal* guideline, which was last updated in 2008. Other questions have dealt with the PEA's Code of Ethics, the duty to report, conditions affecting public safety, and conflict-of-interest provisions, which resulted in the *Professional Engineering Practice* guideline in 2012; and reviewing the work of another engineer, which led to the guideline *Professional Engineers Reviewing Work Prepared by Another Professional Engineer* in 2011.

PEO also issues practice bulletins, which are designed for time-sensitive issues or to interpret aspects of guidelines, which may be later incorporated into guidelines. An example of a recent bulletin was *Structural engineering assessments of existing buildings*, which Vera says was developed in response to the flood of queries PEO received from members about their function following the partial collapse of the Algo Centre Mall in Elliot Lake in 2012. "After that, many engineers called us and said, 'I'm being asked to assess a building or a parking structure by a client—what are my professional responsibilities?' We felt we had to act quickly, so we wrote it down and made it clear in a bulletin," Vera says.

Other ways PEO works to help engineers follow PEA requirements and professional performance standards is by providing webinars to members, and conducting visits to organizations to deliver presentations on practice issues. Altogether, PEO's efforts to help its members understand their professional and ethical obligations play an important role in reassuring the public that engineers are being held to a high standard of practice.

"Our work gives the public a good idea of the responsibilities of engineers and shows that we are supporting them in achieving best practices," Vera says.

Barry Steinberg, P.Eng., C.E.T., chief executive officer of Consulting Engineers of Ontario (CEO), which represents approximately 200 consulting engineering firms in the province, agrees that PEO's performance standards and practice guidelines are useful in helping engineers better understand their obligations under the PEA so they can do their jobs more effectively. However, he says the regulator could do a better job of issuing new standards in a more timely manner, and of ensuring they are developed with adequate input from engineering companies. "I think it sometimes takes way too long to get the standards out...a little bit longer than the rest of us would like," he says.

When creating new performance standards, PEO engages with stakeholders, such as government ministries and practitioners who are doing the actual work, to clarify and define the problem before moving forward with its creation. According to Vera, this can take anywhere from a week to several months. "Unfortunately, PEO's Professional Standards Committee often finds that the problem definitions provided are not clear, and analysis must be done," he says.

MAINTAINING LAW AND ORDER

Upholding the PEA and its regulations is a key PEO priority. The act addresses performance standards for professional engineers; expectations for professional and ethical conduct; sanctions for incompetence and misconduct; procedures for filing formal complaints, and much more. PEO's regulatory compliance department administers the act for both licensed members and unlicensed individuals. The complaints and investigations group is responsible for ensuring licence holders practise in ways that comply with the regulations. The enforcement group, meanwhile, is responsible for taking action against individuals who publicly refer to themselves as engineers or to their work as engineering when they, in fact, don't have an engineering licence. The work of both groups is overseen by PEO's deputy registrar of regulatory compliance, and occurs in conjunction with

two PEO committees: the Complaints Committee, which considers complaints against licence holders, and the Enforcement Committee, which offers input on enforcement policy.

Much of the work of the complaints and investigations group is informed by public reports about the conduct of engineers. These take the form of complaints by users of engineering services, which might include individuals, companies big and small, government agencies and other organizations. Each year, PEO receives approximately 70 complaints about licence holders—including full, temporary, provisional or limited licence holders as well as Certificate of Authorization (C of A) holders—and responds to those complaints relating to the quality of their engineering work or their level of professionalism (as opposed to complaints involving the practitioners' business practices, which are generally out of PEO's purview). Complaints about technical competency may involve the service provider being perceived as negligent in their practice, failing to apply an appropriate code or standard, practising outside their area of expertise, or failing to safeguard the client's health or property. Other complaints may relate to the practitioner's conduct—for example, if it involved harassment or a conflict of interest.

In fulfilling its duty to regulate engineering for the protection of the public interest, PEO is required to respond to all complaints filed. PEO's Complaints Committee investigates the specific details of each case and determines which course of action to take. In some cases, it sends a letter to the practitioner advising them about the concern, or requesting them to submit a written commitment to PEO indicating they will change how they conduct their engineering practice. About 10 per cent of the time, the infraction meets the threshold of seriousness and evidence for being referred to PEO's Discipline Committee. This committee holds formal hearings at PEO's offices to review allegations of professional misconduct or incompetence and to make a determination on the merits of the case that is independent of the decision to refer the matter. If the hearing results in a finding against the practi-

tioner, sanctions may include suspending or revoking a licence, limiting a scope of practice, or requiring the respondent to take technical examinations. As well, PEO shares information about discipline cases with its members by publishing discipline decisions in the Gazette section—or the “blue pages”—of *Engineering Dimensions*.

“It's our obligation as a regulator to investigate every complaint and determine if there has been professional misconduct, incompetence or a breach of PEO's Code of Ethics,” says Cliff Knox, P.Eng., manager of enforcement at PEO.

Knox's group deals directly with all cases of individuals who use the engineer title, or who advertise that they offer engineering services, when they do not have an engineering licence. These cases may involve individuals who have never had an engineering licence, or who have had their licence expire. Knox says PEO receives 350 to 400 inquiries per year on these matters—typically by anonymous emails or phone calls. At other times, PEO conducts Internet searches to proactively identify engineering companies where there is no licensed engineer on staff and no C of A in place. Most of the time, PEO contacts the offending individuals and lets them know they are breaking the law, and must stop falsely representing themselves as engineers or providers of engineering services. Or, it advises them to obtain a licence, which would allow them to use the engineer title, or a C of A, and offer engineering services to the public. In the few instances where unlicensed practitioners continue to misrepresent themselves and there is a clear risk to public safety, PEO prosecutes them in court, and publicizes these cases in order to inform and protect the public.

“Generally, we don't seek to punish, we seek compliance. We're trying to correct behaviour and minimize the instances of it. However, sometimes we have to take a stronger stand,” Knox says. “It's showing the public that we're not just sitting back and answering the phone, that we're taking steps against these kinds of offences.”

George Comrie, P.Eng., FEC, PEO's current president, agrees that by and large, the regulator does a good job at both complaints and enforcement. However, he says the regulator largely operates reactively versus proactively, meaning it responds to incidents—whether it be an uncontained demolition or a building collapse—after they happen and the harm has already been done, rather than trying to do something to prevent them from happening in the first place. “Given the diversity of the scopes of engineering practice, this is an area that requires more attention,” Comrie says.

Knox says PEO's enforcement group has begun stepping up its proactive efforts by hiring another enforcement and outreach officer, whose role includes communicating with key stakeholders on regulatory compliance issues. Also, he says, much of PEO's proactive work cannot be publicized unless it leads to a hearing at PEO's discipline tribunal or to a court prosecution.

REACHING OUT

Another area in which PEO takes a proactive approach is in its efforts to build productive relationships with Ontario's elected officials. The regulator has a robust Government Liaison Program (GLP) that has been in effect since 2005, and features a wide range of initiatives that involve building ties between practitioners and elected officials to collaboratively solve public interest issues related to professional engi-

neering. Developed by PEO in consultation with Brown & Cohen Communications & Public Affairs, the program has a comprehensive three-pronged approach: building and maintaining strong relationships between chapter members and elected officials; monitoring proposed policies that may affect the profession; and expressing PEO's policy positions to government. By playing an active role in providing input on engineering-related policies, PEO hopes to increase understanding about the valuable work engineers do, and to raise the level of respect for the profession.

PEO's government relations activity began at the grassroots level, with each chapter establishing a GLP chair to meet local elected officials and organize chapter-based activities to address engineering-related policy matters. Since then, new initiatives have been added to the program, including: regional academies and congresses for members to learn about approaching and engaging elected officials; campaign colleges, which encourage PEO members to pursue elected office at the provincial level; an annual reception for GLP volunteers and MPPs at Queen's Park; Take Your MPP to Work Days, where an MPP can see engineering work in action at a company in their riding; and sharing news about GLP activities with PEO members through updates in *Engineering Dimensions* and through the online publication *GLP Weekly*. All of this activity is orchestrated by PEO's Government Liaison Committee, which includes representatives from the Ontario Society of Professional Engineers, Consulting Engineers of Ontario, Engineers Canada, engineers from a provincial riding association, as well as an engineering intern (EIT) and an engineering student.

"Our Government Liaison Program lets the government know that we are a large regulatory body that oversees more than 85,000 licence and certificate holders in the province, and that the work we do is in the protection of the public's safety and welfare," says Jeannette Chau, P.Eng., manager of the student and government liaison programs at PEO. "We want MPPs to know that if they have questions or concerns about issues or policies involving engineering, they can come to us for information."

In its recent review of the GLP program, PEO identified many successes. The Queen's Park Day MPP reception has become a popular, high-profile event that now attracts dozens of MPPs from all parties, including ministers, opposition party leaders and, on one occasion, the premier. PEO town hall meetings have been used as a venue for Ontario cabinet ministers to make major announcements. As well, 15 MPPs have participated in a Take Your MPP to Work Day since the initiative began in 2013. Since the inception of the GLP program, PEO has held more than 200 meetings with government officials.

"Engineering is now right up there with medical doctors and other professions in being on the government's radar. It's good for the profession, and it's certainly good for government, because we're getting a whole lot more advice, and better advice, on our infrastructure projects," says David Zimmer, MPP (Willowdale), minister of aboriginal affairs, and a former parliamentary assistant to the attorney general. "When we need input on the viability of our plans for building or rebuilding bridges, roads or electricity grids and how to get the best value for the dollar, one of the groups we certainly look to is the engineering profession."

For PEO, outreach also includes engaging with the public to highlight the achievements of engineers and their important contributions

to society. Each year, the regulator runs two awards events to acknowledge the accomplishments of engineers. Established in 1947, the Ontario Professional Engineers Awards honour engineers who have made outstanding contributions to the profession and to their community. The Order of Honour, meanwhile, recognizes practitioners who have made substantial contributions to the operation of the profession or its professional status. As well, each year, PEO joins Engineers Canada and fellow engineering regulators across the country to organize National Engineering Month, Canada's largest celebration of engineering excellence. The month features more than 500 events demonstrating different engineering disciplines and highlighting the rewards of an engineering career. Finally, chapter volunteers organize a wide variety of local events throughout the year to promote the engineering profession.

Going forward, PEO is looking at significantly ramping up its public outreach and engagement efforts through a comprehensive public information campaign that would increase awareness about the value of professional engineering and the role of PEO in regulating the profession. The move would support one of the mandates of the PEA—promoting public awareness of the role of the association. PEO is currently in the process of putting together a task force to explore the matter further and identify an agency to assist with developing the campaign.

Says Comrie: "The public needs to understand what it is that engineers do, how much they contribute to society, our prosperity and our safety, and how PEO works to regulate the profession in a way that protects the public interest." Σ



MINUTES OF THE 94TH ANNUAL BUSINESS MEETING

SATURDAY, APRIL 30, 2016

PRESIDENT AND CHAIR: THOMAS
CHONG, MSc, P.ENG., FEC, PMP

THE 94TH ANNUAL GENERAL MEETING (AGM) of Professional Engineers Ontario (PEO) was held at the Fairmont Royal York Hotel in Toronto, Ontario on Saturday, April 30, 2016.

President Thomas Chong advised that PEO was webcasting the meeting to increase the accessibility of PEO information to more members, no matter where they are located.

The President thanked the participants and attendees of the previous evening's Volunteer Leadership Conference. He then acknowledged the seven inductees into PEO's Order of Honour, as well as the recipients of the President's Award and G. Gordon M. Sterling Engineering Intern Award, all of whom were honoured during a gala ceremony the prior evening.

President Chong announced that Jesse Brown, a digital media expert and self-described disruptive journalist, would be the keynote luncheon speaker and that the 506th meeting of PEO Council would be held following the luncheon. The President invited delegates of the AGM to participate in social media conversations using #PEOAGM.

He then advised that the President's Chain of Office had been introduced into the formal proceedings of the AGM. He said the Chain of

Office acknowledges the responsibilities, authority and dignity attached to the office of the President of PEO.

CALL TO ORDER

The President advised that since proper notice for the meeting had been published in *Engineering Dimensions*, as provided for under section 20(i) of By-Law No. 1, and a quorum was present, the meeting was officially called to order.

INTRODUCTION OF COUNCIL

President Chong introduced the members of the 2015-2016 PEO Council.

The Executive Committee members: J. David Adams, P.Eng., MBA, FEC, Past President; George Comrie, P.Eng., President-elect; Pat Quinn, PhD (HC), P.Eng., C.Eng., FCAE, FEC, FIEI, Vice President (elected); Bob Dony, PhD, P.Eng., CEng, FIEE, FEC, Vice President (appointed); and Councillors Rebecca Huang, LLB, Changiz Sadr, P.Eng., FEC, and himself as chair.

The remaining members of Council: Councillors-at-Large Roydon Fraser, PhD, P.Eng., and Roger Jones, BSc, P.Eng.; Regional Councillors David Brown, P.Eng., BDS, C.E.T., and Charles Kidd, P.Eng. (Eastern Region); Nicholas Colucci, P.Eng., FEC (East Central Region); Serge Robert, P.Eng., and Dan Preley, P.Eng. (Northern Region); Len King, P.Eng., FEC, and Ewald Kuczera, MSc, P.Eng. (Western Region); Danny Chui, P.Eng., FEC, and Warren Turnbull, P.Eng. (West Central Region); Lieutenant Governor-in-Council Appointees Ishwar Bhatia, MEng, P.Eng., Santosh Gupta, PhD, P.Eng., FEC, Richard Hilton, P.Eng., Bill Kossta, Mary Long-Irwin, Sharon Reid, C.Tech., Rakesh Shreewastav, P.Eng., AVS, FEC, and Marilyn Spink, P.Eng.

PEO's directors to Engineers Canada for 2015-2016: Diane Freeman, P.Eng., FEC, Annette Bergeron, P.Eng., FEC, Chris Roney, P.Eng., BDS, FEC, George Comrie and Rakesh Shreewastav. President Chong also acknowledged PEO Registrar Gerard McDonald, P.Eng.

ORDER OF BUSINESS

President Chong welcomed the special guests attending the meeting and introduced representatives from provincial and national engineering associations from across the country:

- Digvir S. Jayas, P.Eng., FEC, President, and Kim Allen, P.Eng., FEC, CEO, Engineers Canada;
- Mike Wrinch, PhD, P.Eng., FEC, President, and Ann English, P.Eng., CEO and Registrar, Association of Professional Engineers and Geoscientists of British Columbia;
- Steve Hrudey, PhD, P.Eng., FEC, President and Mark Flint, P.Eng., CEO, Association of Professional Engineers and Geoscientists of Alberta; and
- Margaret Anne Hodges, P.Eng., FEC, President, and Dennis Paddock, P.Eng., FEC, Executive Director and Registrar, Association of Professional Engineers and Geoscientists of Saskatchewan.

He also welcomed representatives of PEO's partners in the Ontario engineering community and allied professions:

- Karen Chan, P.Eng., President and Chair, and Sandro Perruzza, CEO, Ontario Society of Professional Engineers (OSPE);
- Bruce Potter, P.Eng., Chair, Consulting Engineers of Ontario;
- David Thomson, CEO, Association of Certified Engineering Technicians and Technologists (OACETT); and
- Doris Chee, President, and Aina Budrevics, Acting Executive Director, Ontario Association of Landscape Architects.

IN MEMORIAM

The President then asked all present to stand for a moment of silence in remembrance of those PEO members who passed away in 2015.

ADOPTION OF MINUTES

President Chong referred members to the minutes of the 2015 AGM.

It was moved by Nick Colucci, seconded by Warren Turnbull that the minutes of the 2015 AGM, as published in the November/December 2015 issue of *Engineering Dimensions* and as distributed at the meeting, be adopted.

Motion carried

BUSINESS ARISING FROM THE MINUTES

The President reviewed the actions taken by Council on submissions discussed at the 2015 AGM. Members made five submissions to the meeting, four of which were passed and therefore reviewed by Council at its September meeting.

President Chong noted that the first submission dealt with establishing term limits for Council positions and the second submission dealt with establishing a succession planning system to identify candidates for Council positions, on the assumption that incumbents would have to vacate positions more frequently.

He advised that given the close relationship of the two resolutions, Councillor Brown had offered to work with the movers of the submissions to draft a motion establishing a Council Term Limits Task Force with Terms of Reference for presentation at the November Council meeting. The President said that this offer was accepted and, at the November meeting, Council affirmed, in principle, that term limits and succession planning should be established for all Council positions. President Chong said Council then directed the Registrar to develop the draft terms of reference and a proposed list of members for a task force to examine issues around term limits and succession planning, and provide a report with recommendations for its approval before the 2017 Annual General Meeting.

The President continued noting the third submission requested that future PEO budgets be based on its needs as a regulator, rather than matching spending to projected income. President Chong said that although no specific action was taken on this submission, PEO has an established internal control system for expenditures and purchase of goods and services on a value basis, to ensure PEO's financial resources are used effectively and according to sound and consistent procedures. He stated that each department head also receives monthly reports, detailing variances to budget, for internal control and cost analysis; and the Finance Committee reviews variances once every three months and seeks explanations on significant variances.

President Chong then discussed the fourth submission, which called for a PEO policy to grant access to a PEO webmail account (@peo.on.ca) to active members providing volunteer hours and service on PEO Council, approved committees, a chapter executive or a chapter directorate. The Registrar spoke to this issue and said PEO can grant chapters access to its global email system but doing so for all 1000 PEO volunteers could cost up to \$18,000. The Registrar also informed Council that PEO research has shown that an overwhelming majority of members are not interested in this type of access. Council agreed the matter should be referred to the IT Envisioning Group for further review.

FINANCIAL REPORT

The President then referred members to the auditors' report and financial statements, which were published to PEO's website prior to the meeting, distributed as part of the meeting registration package and printed in the May/June 2016 issue of *Engineering Dimensions*.

He also noted the *Questions and Answers on PEO Operations* booklet, which addressed common questions on PEO operations and was included in the registration package.

With no questions from the floor regarding the financial statements, it was moved by Ewald Kuczera, P.Eng., and seconded by Changiz Sadr, P.Eng., that the financial statements, as presented, be received.

Motion carried

APPOINTMENT OF AUDITORS

President Chong advised that the Audit Committee recommended the firm of Deloitte LLP be reappointed.

It was moved by Ewald Kuczera, seconded by Changiz Sadr, that the firm of Deloitte LLP be appointed auditors of the association for the 2016 financial year.

Motion carried

REGISTRAR'S REPORT

Registrar McDonald reported that revenues for the year ended December 31, 2015 were \$23,715,419 less expenses of \$22,784,243, resulting in a surplus of \$931,176. Cash reserves, he noted, were \$8.2 million, double the amount since 2012. The Registrar said PEO continued to have the lowest P.Eng. fees in Canada and has the highest ratio of members to employees.

[AGM MINUTES]

Licence fees, he added, were frozen for the ninth consecutive year.

The Registrar said PEO issued 2,449 new licences in 2015, the second highest year of licensing activity. He then provided additional statistics for 2015:

- 79,735 professional engineers;
- 12,596 engineering interns (EITs);
- 5,250 Certificates of Authorization;
- 1,085 consulting engineers;
- 250 limited engineering licences (LELs); and
- 23 provisional licences.

He said PEO's Financial Credit Program now represents 50 per cent of P.Eng. applications.

The Registrar highlighted progress on initiatives related to PEO's 2015-2017 Strategic Plan. He said that of the 96 specific strategies identified in the plan, 40 per cent have been completed, 50 per cent were in progress, 10 per cent had yet to start, and the plan was on track for completion within the prescribed timeframe. Registrar McDonald stated that each strategy has a number of associated activities and that 66 per cent of these had been complete with 13 per cent underway. The final 21 per cent had yet to commence. Further to this, the Registrar said 18 strategies were added to the original 96, demonstrating that the 2015-2017 Strategic Plan is a living, evolving document.

The Registrar then reviewed some of PEO's accomplishments in 2015, including implementation of the Aptify licence holder database software and consolidation of the IT infrastructure hosting, which reduced the number of suppliers from four to one. Registrar McDonald noted the latter initiative has led to savings of approximately \$200,000 annually.

The Registrar also noted that, in 2015, Council approved the Act Change Protocol, which allows Council to regularly review proposed act changes and policy intent so PEO is ready when government signals its willingness to consider changes to the act.

Registrar McDonald reminded that one area of concern brought forward by chapter representatives at the 2015 AGM involved PEO's inefficient eblast capabilities. The Registrar advised that the Prism system was replaced by

a new system, Campaigner, which is fully operational in all chapters and provides improved capabilities to disseminate eblasts and measure analytics data.

INTRODUCTION OF ASSOCIATION GUESTS—ENGINEERS CANADA

The President invited Engineers Canada to provide an update.

Engineers Canada President Digvir Jayas thanked PEO for the invitation to attend the AGM. He said he was honoured to bring greetings and best wishes from Engineers Canada, the national body that unites the engineering regulators and the engineering profession in Canada.

Dr. Jayas shared that Engineers Canada launched a new website in conjunction with National Engineering Month that encourages people, through unique interactive features, to spread the word about engineering throughout the year.

He said the national body is also working on an interactive, online portal that addresses the labour market needs of engineers in Canada. Dr. Jayas said the new EngScope website is directed at engineers, new immigrants and students considering engineering as a career. He added the site features employment rates, salary numbers, university enrolment and immigrant employment figures—all of which are broken down by province and engineering discipline.

Dr. Jayas commented that great strides are being made in fostering diversity within the engineering profession and that Engineers Canada's Sustainable Profession Committee is working with all provinces and territories toward ensuring that 30 per cent of newly licensed engineers are women by the year 2030. He noted Ontario is showing great promise in reaching this goal, having already attained 16 per cent.

Dr. Jayas also announced that in support of increasing diversity in engineering and geoscience workplaces, Engineers Canada and Geoscientists Canada jointly published *Managing Transitions*, a national planning resource guide that outlines best practices for employees and employers managing maternity and parental leave in the engineering and geoscience professions.

He promoted the launch of a new health and dental insurance program for retirees with partner Manulife. The Professional Retiree Health and Dental Insurance offers benefits that specifically cater to the next stage in life and starts where government coverage ends—for both routine and unexpected medical expenses.

Dr. Jayas then provided an update on Engineers Canada's government relations program, noting his approval of the government's commitment in the latest federal budget to building resilient and sustainable infrastructure, improving water distribution and treatment, and investing in First Nations communities. He also shared that Engineers Canada organized its most successful Contact Day on Parliament Hill yet in March, connecting with 40 MPs and additional meetings continuing throughout April to discuss climate-resilient infrastructure, diversity in the engineering profession, and the important role that engineers play in safeguarding the environment, the economy and Canadians.

In closing, Dr. Jayas thanked PEO's Registrar, Gerard McDonald, PEO Council and staff for their ongoing support of Engineers Canada and said he looks forward to continued collaboration between the associations.

INTRODUCTION OF ASSOCIATION GUESTS—ASSOCIATION OF PROFESSIONAL ENGINEERS AND GEOSCIENTISTS OF BRITISH COLUMBIA

The President invited the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) to provide an update.

APEGBC President Mike Wrinch said he believes it is APEGBC's responsibility to ensure it has the right tools to be an agile and progressive regulator so 21st-century engineering and geoscience practice continues to serve the public interest. He noted APEGBC proposed changes to its governing legislation, including tools to address public safety challenges, accountability in governance, and most significantly, a request to enable APEGBC Council to pass bylaws on matters related to professional practice and public safety without member ratification.

He said that as self-regulating professions, there is a social contract with the public: in return for the ability to self-regulate, his organization commits to engineering and geoscience practice that puts the public interest first. Motivated by the belief that professional development reporting supports public confidence in the profession and maintains public trust, Wrinch said that APEGBC Council proposed a bylaw to introduce a mandatory continuing professional development program in BC. He stated that following extensive consultation and communication campaigns, the bylaw was not ratified by members.

Wrinch also noted that, in light of the Mount Polley Tailings Dam failure, APEGBC is examining whether to pursue regulatory authority over engineering or geoscience companies.

He further commented that APEGBC is supportive of the Engineers Canada goal of having women make up a minimum of 30 per cent of the engineering profession in Canada by 2030.

Wrinch ended his address by stating: "As engineers, I have great faith in our ability to be leaders and in the change we can effect. I thank you for the work that you're doing. It's up to us to keep going."

INTRODUCTION OF ASSOCIATION GUESTS—ASSOCIATION OF PROFESSIONAL ENGINEERS AND GEOSCIENTISTS OF ALBERTA

President Chong then invited the Association of Professional Engineers and Geoscientists of Alberta (APEGA) to provide an update.

APEGA President Dr. Steve Hrudehy said it was his pleasure to attend and to bring greetings from APEGA on behalf of his Council colleagues and members.

Dr. Hrudehy said APEGA recently held its annual general meeting and was pleased PEO President Chong was able to attend along with representatives from many other constituent associations.

He noted APEGA has been taking a closer look at its regulatory processes and, since 2014, at the request of the Government of Alberta, APEGA has been engaging its members, permit holders and other stake-

holders in a review of the *Engineering and Geoscience Professionals Act*—the legislation that governs APEGA.

Dr. Hrudehy stated that 40 proposed recommendations to the act have been reviewed to date, including:

- Scopes of practice;
- Maximum fines; and
- Public dissemination of decisions.

Should the government accept the recommendations, he said, it is hoped a new act will be proclaimed by the end of 2018.

Hrudehy extended best wishes as PEO celebrates its 94th Annual General Meeting.

INTRODUCTION OF ASSOCIATION GUESTS—ASSOCIATION OF PROFESSIONAL ENGINEERS AND GEOSCIENTISTS OF SASKATCHEWAN

The President invited the Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS) to provide an update.

APEGS President Margaret Anne Hodges brought greetings from Saskatchewan. She said APEGS is keeping an eye on the economy and the nature of projects within the province that employ engineers and geoscientists. She said that while Saskatchewan has not been hit economically as hard as neighbouring Alberta, they do expect to see changes in their membership. Hodges said that Saskatchewan's strength is its diversity, but with a number of large projects wrapping up, they expect to see a change in 2015 registration statistics, which they are monitoring closely.

Hodges stated that key topics for the coming 12 to 18 months were identified during the association's annual strategic planning session. She said APEGS continues to place high emphasis on Continuing Professional Excellence (CPE) reporting and believes it's something a high majority of its members undertake every year. The challenge, she added, is reporting and it is important to move the bar up to demonstrate that regulation of the profession in the public interest is rigorous and ongoing. Hodges said reporting CPE was simple and she would be reporting CPE hours for attending PEO's annual meeting since annual general meetings are eligible credit hours in Saskatchewan.

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Hodges then added that APEGS has endorsed the 30 by 30 initiative of Engineers Canada.

She recognized and thanked retiring Executive Director and Registrar Dennis Paddock, P.Eng. She said Paddock has led the organization for the past 23 years and has stewarded many changes, including the last act revision, welcoming geoscientists to the organization and reorganizing the office to meet the demands of the 21st century regulatory environment, all of which position APEGS for a strong future. She added that APEGS has established a strong and diverse Selection Committee and has selected an HR firm to lead the organization through the replacement hiring process.

INTRODUCTION OF ASSOCIATION GUESTS—ONTARIO SOCIETY OF PROFESSIONAL ENGINEERS

The President invited the Ontario Society of Professional Engineers (OSPE) to provide an update.

OSPE President and Chair Karen Chan expressed her appreciation for the opportunity to attend and bring greetings on behalf of the society.

Chan explained that OSPE's mandate is to elevate the profile of the engineering profession by advocating with governments, promoting the work of engineers to the media and public and providing opportunities for ongoing learning and networking.

She said OSPE believes the Ontario government needs to appreciate and invest in its engineers and therefore they must be at the table when important decisions are made regarding infrastructure improvements, climate change initiatives, and research and innovation funding.

She added that OSPE also believes that the media and the public must understand what engineers are doing for society and why engineers should be valued.

Throughout 2015, Chan said, OSPE and its members were featured in print, broadcast and online media stories across Ontario 18 times, reaching an audience of more than 2.5 million Ontarians. She stated OSPE will continue these efforts through 2016, but more input from all of Ontario's engineers is needed to ensure issues that matter to the profession are being addressed.

Chan invited anyone who had questions or would like to get involved to speak with her so she can connect them with the appropriate OSPE staff member.

INTRODUCTION OF ASSOCIATION GUESTS—CONSULTING ENGINEERS OF ONTARIO

The President invited Consulting Engineers of Ontario (CEO) to provide an update.

CEO Chair Bruce Potter expressed thanks for the invitation to be part of PEO's AGM. He said engineers create important links between scientific advances and commercial applications to solve society's greatest needs. More importantly, Potter said, engineers play a crucial role in protecting public safety and engineering is a profession that comes with great responsibilities.

Potter, on behalf of Consulting Engineers of Ontario, applauded PEO for its commitment to ensure all professional engineers are appropriately qualified because this ultimately leads to the protection of the public.

He said CEO, like PEO, believes in the profession's fiduciary responsibility to be the guardians of public safety. Potter noted that CEO also believes a sustainable business environment is what enables engineers to perform their responsibility. As an organization, Potter added, CEO strives to change the business environment through persistent and effective persuasion. He stated that CEO can only be persuasive when they have support from their partners, like PEO. It is only by working together to speak with confidence and authenticity, Potter concluded, that the voice of the engineering profession will become more powerful and create a direct impact.

INTRODUCTION OF ASSOCIATION GUESTS—ONTARIO ASSOCIATION OF CERTIFIED ENGINEERING TECHNICIANS AND TECHNOLOGISTS

The President invited the Ontario Association of Certified Engineering Technicians and Technologists (OACETT) to provide an update.

OACETT Chief Executive Officer David Thomson spoke on behalf of OACETT President Bob van den Berg, who was unable to attend. Thomson expressed OACETT's appreciation to President Chong for his hard work and co-operative working relationship, and offered that his organization was looking forward to working with incoming PEO President George Comrie as well as President-elect Bob Dony.

Thomson thanked Sharon Reid, OACETT representative on PEO Council for the last six years, and Changiz Sadr, PEO representative on OACETT Council, who has served four years.

Thomson mentioned that engineers and technologists work well together in the field, at the chapter level and corporately. He said that OACETT has worked well with the Ontario Society of Professional Engineers (OSPE) and Engineers Without Borders (EWB) to resurrect the National Engineering Month Program, as well as with PEO to implement the Licensed Engineering Technologist (LET) designation.

INTRODUCTION OF ASSOCIATION GUESTS—ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS

The President invited the Ontario Association of Landscape Architects (OALA) to provide an update.

Newly-elected OALA President Doris Chee, along with Aina Budrevics, Acting Executive Director, brought greetings from their association. Chee thanked President Chong for his invitation to join and participate in PEO's Annual General Meeting and congratulated incoming President Comrie, noting that they were glad to witness his first day on the job.

Chee noted that both she and Budrevics attended the awards gala the preceding evening and enjoyed the event, especially the investiture of volunteers. Chee said that, like PEO, OALA is made up of many volunteers. Without their time and efforts, she added, OALA would not be as strong as it is. As much as it brings fulfillment to those who volunteer, it brings engagement and collaboration among peers.

Budrevics said she met President Chong and his wife Lily at the OALA AGM in Niagara Falls in April, and thanked him for taking part in the conference. She said OALA's goal is to build awareness of the need to improve regulation of landscape architecture in Ontario by modernizing its legislation to achieve a practice act to grant licensure and disciplinary control of its members. This will ensure better health, safety and wellness for the public, she noted.

Budrevics added that OALA is looking to PEO as an example of how to communicate with landscape designers to see how they can support their goal of achieving formal title recognition, and looks forward to its continued collaboration with PEO and its Council.

PRESIDENT CHONG'S OUTGOING REPORT

President Chong said that as his term nears its conclusion, he has reflected on PEO's progress over the past 12 months and wished to share some thoughts on the work of Council. He quoted famous Chinese philosopher Lao Tsu, who once said, "The journey of a thousand miles begins with one step." President Chong said that, together, first steps were taken at last year's AGM and PEO has made great strides since in advancing and regulating engineering practice in the public interest. He noted that it has been said that feeling gratitude and not expressing it is like wrapping a present and not giving it. President Chong expressed his appreciation for the opportunity to serve the members as the 96th President of PEO and thanked members for embracing diversity and inclusion, and helping to maintain an environment in which all PEO members and staff are valued, respected, supported and given the opportunity to reach their full potential. He also thanked the more than 1000 PEO volunteers who work diligently and enthusiastically to advance the profession through Council, chapters, committees and task forces.

Referencing Canadian hockey king Wayne Gretzky, who said that a good hockey player plays where the puck is but a great hockey player plays where the puck is going to be, President Chong indicated that, similarly, PEO needs to continuously improve the profession and raise the relevance and the value of the P.Eng. licence to society, and, in turn, to the licence holders.

He stated that he had set three priorities for his presidency based on innovation, recognition and collaboration.

Initiatives related to innovation included PEO's 2015-2017 Strategic Plan, which was launched at the 2015 Council Retreat. The plan determined the priorities for PEO programs and initiatives that would help guide Council, other volunteers and staff over the three-year period.

President Chong also noted that Council approved regulations for granting the Licensed Engineering Technologist (LET) class of limited licence in 2015. This helps recognize the important role played in the profession by limited licence holders, who are certified engineering technologists and members of OACETT, and provides them with a protected title and designation from PEO.

The President reported that PEO implemented its new Aptify database software on April 1, 2016 together with the new website Member Portal. The innovative portal enables licence holders, engineering interns and, for the first time, licence applicants to update their contact information, change their communication preferences and pay their fees online. He thanked PEO's IT staff and subject matter experts who worked hard to ensure a successful transition.

President Chong then thanked members of the Finance and Audit Committees, as well as Council and staff, for delivering a surplus budget for 2016. He commented that PEO is committed to delivering high quality regulatory programs, designing thoughtful policy and above all, working to improve and protect the health, safety and well-being of all Ontarians in a fiscally responsible manner. He also noted that PEO's 36 chapters received a 10 per cent increase in funding in 2016, to enable healthy growth, broaden local outreach efforts and enhance their involvement in regulatory functions.

Continuously improving PEO's core, self-regulatory functions is key to greater recognition for engineering licensure, President Chong continued, which is why significant attention is devoted to enforcement efforts and the development of additional professional practice guidelines and standards to ensure engineering work meets a recognized standard by PEO licence holders. PEO expressed great displeasure

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at the government's surprising decision late in 2015 to cancel the repeal of the industrial exception in the *Professional Engineers Act*, the President said, noting that the industrial exception allows non-engineers to carry out certain types of engineering work at manufacturing facilities.

President Chong compared the exception to medical doctors not needing to be licensed if they work in hospitals. He stated that repealing the industrial exception is in the best interest of the public to ensure the safety of all Ontarians where engineering is practised, which is PEO's mandate. The repeal is not red tape as some have suggested, he said, because it serves to protect the public interest and promotes safety. The President asked if repealing the industrial exception saves just one life, wouldn't it be worth it? President Chong said he believes good engineers reduce costs, improve productivity and protect the health, safety and well-being of Ontarians. Engineering must be viewed as an investment for the future of any wealth-generating enterprise, not as a cost of production, he added. To raise the relevance and value of the engineering profession, starting with this fundamental belief in the profession is crucial. The President said PEO remains committed to demonstrating the value licence holders bring to Ontario manufacturing.

President Chong then announced that PEO is working to increase the profile of its volunteers by creating a new level of volunteer recognition. If approved, the award would be presented by the Ontario Lieutenant-Governor, the Honourable Elizabeth Dowdeswell, at PEO's annual Order of Honour awards gala.

The President went on to discuss his third priority area, collaboration. He stated that Council supports the idea that in a self-regulating profession, such as engineering, each member has a part to play in its regulation. Future leaders in self-regulation, he said, will have to commit to self-monitoring, self-surveillance and relentless self-improvement. President Chong said that to further engage members in regulatory activity, PEO held seven town hall meetings throughout the province in 2015. These meetings allowed PEO to consult with members on how it can strengthen the engineering profession by implementing the recommendations of the Elliot Lake Commission

of Inquiry in ways that make sense for both practitioners and the public. The President extended his sincere thanks to the more than 500 engineers and interns who attended the meetings and provided valuable feedback which was brought back to Council for thoughtful discussions.

President Chong noted that one of the Inquiry's recommendations was to establish a system of mandatory continuing professional education for licence holders. He said PEO is the only engineering regulator in Canada without some form of professional development regime for its licence holders. The President offered that PEO's proposed program is not a one-size-fits-all solution and is different from those in other provinces. He said its requirements are based on the risk to the public posed by each licence holder's work. President Chong stated that Council believes this is a unique program that is both meaningful and fair, and that Council is committed to putting any mandatory aspects of the program to the members for a vote after they have had the opportunity to test out the program.

President Chong then noted that PEO extended its support to local communities and charities last year through corporate challenges, including the Big Bike Ride with OSPE, which raised donations for the Heart and Stroke Foundation. Chong reported that work is already underway for the 2016 Big Bike Ride and he looks forward to seeing this corporate challenge emulated throughout the 36 PEO chapters.

President Chong said he was fortunate to have served on such a cooperative and productive team. He added that he has enjoyed working with the dedicated men and women on Council who shared his focus on regulatory matters and worked hard to advance and regulate the practice of engineering to protect the public interest. The President then extended heartfelt thanks to PEO's Registrar, Gerard McDonald, his senior management team and their staff for their ongoing support of everyone's concerted efforts, and to the 36 chapters and all those who contributed to PEO initiatives and programs.

President Chong thanked his wife Lily Yan and concluded by saying it has been his honour to represent the members as the 96th President of PEO.

(CP)² TASK FORCE PRESENTATION

The President called on the Chair of PEO's Continuing Professional Competence Program (CP)² Task Force, Annette Bergeron, to provide a report.

Bergeron explained that the title of her presentation, "Beyond Licensure," reflects the fact that after an engineer receives his or her licence from PEO, there is typically no further contact between PEO as a regulator and the licence holder, other than the annual fee payment.

Bergeron informed that in March 2014, Council created a Continuing Professional Development, Competence and Quality Assurance (CPDCQA) Task Force. The task force presented its final report and recommendation to Council in November 2015, which was accepted, on time and on budget. The task force was then stood down. In February 2016, Council created the Continuing Professional Competence Program (CP)² Task Force.

Bergeron first reviewed the work of the CPDCQA Task Force stating that, in October 2015, then Attorney General Madeleine Meilleur, in her one-year update to Elliot Lake Inquiry Commissioner Paul Bélanger, indicated the Ministry of the Attorney General was liaising with PEO on

mandatory continuing professional education and potential amendments to the *Professional Engineers Act*. Bergeron noted that PEO had considered mandatory professional development previously but the idea was ultimately voted against by members in a referendum. She said the task force did not want to repeat mistakes of the past and preferred to create something new through leading best practices. This was accomplished, Bergeron said, through consultations to understand members' attitudes towards mandatory CPD. She noted that Ipsos Reid was engaged to conduct three focus group sessions involving 29 participants to ascertain, in detail, attitudes to the principles of the proposed CPD. They also conducted an online survey of 6786 respondents (8.4 per cent of licence holders). Furthermore, seven town halls across Ontario, attended by herself, President Chong and Registrar McDonald, were conducted to provide members the opportunity to discuss and provide input regarding the proposed CPD program.

Bergeron explained that three conclusions emerged from this research: for most practitioners, a mandatory CPD program would not change their current practices; the proposed program would formalize normal CPD activities within the engineering profession; and, the program would allow PEO to collect data to demonstrate these activities to the public.

Bergeron said the CPDCQA Task Force recommended, and Council agreed, that CPD requirements should be based on the risk to the public attributable to an individual practitioner's engineering practice. Risk mitigators applicable to a practitioner's practice would reduce CPD requirements, she added. Bergeron noted that this is individualized approach to determining CPD requirements is unique and that the proposed program is focused only on technical activities, which is different than what is currently in place across the country.

Bergeron then provided an update on the activities of the (CP)² Task Force, which she also chairs. She said the composition of this task force is different than the first task force in that the majority of members are Councillors. The task force is to continue developing the risk review questionnaire, develop a beta risk review and reporting website for user testing, provide guidelines and other information to assist licence

holders with annual online reporting, and recommend to Council what may be the appropriate referendum plan and timing.

Bergeron reviewed the work plan, which is to have the beta website available for Council and focus group testing in June 2016. The final report, with recommendations to Council, is due December 2016 with the website available for use by licence holders on a voluntary basis in January 2017. The work plan also includes the consideration of the referendum question and timing on any mandatory CPD program. The task force will be stood down in December 2016.

Members were then invited to ask questions and provide feedback.

In response to questions, Bergeron noted that:

- The task force has not determined the question(s) at this time but welcomed input from the members.
- The task force is developing a communications plan to solicit input from the chapters and that there could be town hall meetings where the chapters could provide input. The task force will also have an online tool for members to provide input.
- There have been discussions that the employer should be responsible for CPD and that this could become part of the Certificate of Authorization.
- The task force has discussed developing a list of online technical activities that would count as CPD. She said it is up to the practitioner to determine what kind of programs they need to complete to take in order to stay current.
- The task force is dedicated to hearing feedback from the membership on this issue and will continue with consultations.

Comments from members included that:

- As a self-regulating authority, PEO members have an opportunity to engineer a CPD program that is under their control and solves a problem. The alternative is to have the government impose CPD that is designed by bureaucrats, resulting in loss of control. Being a licensed profession means having responsibilities. For the good practitioners, who are the vast majority, licensed engineers are already doing what is needed and just have to show it. PEO needs to address the few who are not.
- CPD is a solution in search of a problem. The marketplace has dealt with the profession since 1922 without major issues other than the Elliot Lake collapse. There is no guarantee that CPD would have prevented what happened there. The member stated he believes engineers have to stay current in order to properly serve the client.
- Less than 30 per cent of members need their P.Eng. in order to practise. The vast majority of members don't need their P.Eng. to do their work. CPD should not ask members to update their skills for a P.Eng. they do not use. In developing CPD, the task force needs to recognize the difference between those who need their P.Eng. to work and those who don't. More restricted practices are needed in order to protect the public and that is what requires focus.
- CPD could be an opportunity to re-address the industrial exception. If qualifications are based on the safety of the public, then those people doing engineering within the walls of a manufacturing or processing facility are not currently covered by PEO.

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APEGBC Chief Executive Officer and Registrar Anne English shared that her association took the question of mandatory CPD to their membership twice and it was rejected both times. She noted APEGBC is still committed to mandatory CPD and exploring other avenues and that the BC government was very disappointed at the result of their latest referendum. She commented that the risk-based approach that PEO's task force is proposing is the way to go and that PEO members are currently in the driver's seat as it is better to be proactive on this issue than having something imposed by the government.

MEMBER SUBMISSIONS

President Chong stated that, as noted in section 17 of By-Law No. 1, PEO's AGM is held:

- to lay before members reports of the association's Council and committees;
- to inform members of matters relating to the affairs of the association; and
- to ascertain the views of the members present on matters relating to the affairs of the association.

He noted that submissions presented at the AGM are a way for members in attendance to express their views on matters relating to the affairs of the association. Member submissions are not binding on Council, he continued, but Council considers the issues raised at AGMs to be very important and will be addressed expeditiously.

President Chong asked the proponent of the first submission to introduce their motion.

Pappur Shankar, P.Eng., introduced his motion by stating he put his name forward as a candidate for the Engineers Canada Board and felt that representation should go beyond members of Council.

A member stated that the supporting statements regarding the motion were confusing in that a recipient of the Fellow of Engineers Canada (FEC) does not have to be an Engineers Canada Board member. The criteria for the FEC designation is someone who has provided 10 years or more of volunteer service to a provincial association and who has contributed significantly to the profession.

Responding to a request for clarification regarding the process for electing PEO Directors to the Engineers Canada Board, Registrar McDonald

advised that a decision was made by Council at the June 2015 Council meeting that Councillors who put their names forward for election to the Engineers Canada Board could not participate in the voting for the available positions. He further noted that the Human Resources Committee had indicated that they would be reviewing the process for selecting Engineers Canada Board members and would present their recommendations back to Council at a future meeting.

Moved by Pappur Shankar, P.Eng., seconded by Brett Chimel, P.Eng.
WHEREAS PEO representatives to Federal Engineers Canada (FEC) Board.

WHEREAS The Board member for FEC to be elected with other candidates during PEO Council. The election to be held in conjunction with the general elections of other candidates to PEO Council.

WHEREAS To ensure better transparency amongst the candidates and the selection process. The process of electing Fellow Engineers of Canada should be changed to allow all PEO members to become candidates for the positions of board member. Any member may be nominated for election to the board and include member residents from each region. [Regulation 941/90, s.14(1)].

WHEREAS The goal should be to demonstrate transparency amongst the candidates and the selection process. The goal should be to promote the best candidates who are well rounded and experienced engineers.

AND WHEREAS Council is selecting and choosing Council members and there seems to be no way for other engineers to get elected.

THEREFORE BE IT SUBMITTED THAT:

PEO representative to Engineers Canada board be elected as part of the PEO Council election.

Motion defeated

President Chong then asked the proponent of the second submission to introduce their motion.

Peter Broad, P.Eng., advised that his motion was intended to express the wishes of the membership to Council regarding ongoing discussion with the government on the repeal of the industrial exception.

Moved by Peter Broad, P.Eng., seconded by Roger Barker, P.Eng.

WHEREAS The Government of Ontario created APEO to be its Instrument in the Regulation of Professional Engineering in Ontario;

AND WHEREAS An exception, PEA subsection 12(3)(a), has allowed unlicensed persons to perform acts within the practice of professional engineering in relation to machinery or equipment, other than equipment of a structural nature, for use in the facilities of the person's employer in the production of products by the person's employer.

THEREFORE BE IT SUBMITTED THAT:

PEO should continue discussions with the Government and others to ultimately eliminate the Ontario Industrial Exception and align PEO with other Engineering Regulators.

Motion carried

President Chong then asked the proponent of the third submission to introduce their motion.

Moved by Ray Linseman, P.Eng., seconded by Stephen P. Wall, P.Eng.

WHEREAS PEO sent a 2015 Member Satisfaction Survey by email to the membership on January 5, 2016

AND WHEREAS It would appear the satisfaction survey was reviewed in camera as item 4.8 Council Evaluation Survey Results at Council meeting 504 held February 4/5, 2016 and was therefore not published in the agenda

THEREFORE BE IT SUBMITTED THAT:

PEO Council makes available to the membership the results of the satisfaction survey.

Registrar McDonald explained that two surveys were recently conducted. One was a Council self-evaluation survey that was reviewed in-camera at the February 5, 2016 Council meeting. The motion above refers to the second survey, which was a membership evaluation survey. Registrar McDonald stated that analysis of the latter survey is ongoing and the current objective is to present the results to Council at its June 2016 meeting. The survey results will subsequently be published online for members to view. In light of this explanation, the mover and second-order agreed to withdraw their motion.

President Chong then asked the proponent of the fourth submission to introduce their motion.

Ray Linseman, P.Eng., made reference to Justice Belanger's recommendation 1.24 wherein he specifically used the term "continuing professional education" and in the *Professional Engineers Act* it does allow PEO to create regulations providing for continuing education of the members. In the presentations that we have had on this topic it's been called CPD and then CPDCQA and (CP)². The purpose of his motion was to remain consistent with the wording of the act and the wording of Justice Belanger and use the term "Continuing Professional Education." He stated that there were actually three motions in the submission and suggested the motions be split and voted on individually.

Members provided feedback regarding a referendum, both in support and against.

A member noted that Council already has the authority, at the direction of Justice Belanger of the Elliot Lake Commission of Inquiry, to implement continuing professional education.

Registrar McDonald advised that PEO's interpretation of the wording in the act makes its regulatory authority quite restrictive in that it envisages PEO as providing continuing education for its members. PEO's view is that it should be able to define a program but not be the provider of education services. In order to achieve this, PEO would look at changing the regulatory authority under the act to enable the association to define a program appropriately as opposed to offering continuing professional education.

(CP)² Task Force Chair Bergeron responded to comments on a referendum by advising that if a member is non-practising in Ontario,

they would not be required to complete the risk review—they would just check the non-practising box. Bergeron wondered why the approximately 60 per cent of members who are non-practising would vote this down in a referendum if they are not required to undertake CPD. She agreed with members who suggested that it is very important to have an ethics requirement within the CPD requirements and she offered that the proposed CPD program will include a very short ethics refresher as well as the technical component, where applicable.

Moved by Ray Linseman, P.Eng., seconded by Stephen P. Wall, P.Eng.

WHEREAS In the Report of the Elliot Lake Commission of Inquiry Executive Summary recommendation 1.24 states:

Recommendation 1.24

The Professional Engineers of Ontario should establish a system of mandatory continuing professional education for its members as soon as possible and in any event no later than 18 months from the release of this report.

AND WHEREAS The recommendation used the term "continuing professional education"

AND WHEREAS The Professional Engineers Act, R.S.O. 1990, Chapter P.28 under section 7 subsection (1) With the preamble "Regulations states "7(1) **Subject to the approval of the Lieutenant Governor in Council and with prior review by the Minister, the Council may make regulations.**"

AND WHEREAS Under paragraph 27 of subsection 7(1) the regulations include "27 **providing for continuing education of members**";

AND WHEREAS According to the March/April 2016 issue of *Engineering Dimensions* on page 8 it states the program is being called currently continuing professional competence program (CP) squared.

THEREFORE BE IT SUBMITTED THAT:

- a) The program be named Continuing Professional Education (CPE) to reflect the wording of Justice Belanger and the authority given under the *Professional Engineers Act*.

Motion defeated

- b) That Council rescind its motion to conduct a referendum of the members and continue with the implementation of the program.

Motion defeated

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- c) That Council conducts a referendum of the 36 PEO Chapter Boards rather than the membership at large.

Motion defeated

President Chong advised that submissions passed at the AGM would be considered by the Executive Committee and/or Council in the near future.

PRESENTATION TO OUTGOING COUNCILLORS

President Chong congratulated members of the 2015-2016 Council who had worked diligently to move the profession forward.

In recognition of their service, he presented certificates, name badges and desk plaques to retiring members of Council: Past President J. David Adams, East Central Region Councillor Nick Colucci, Lieutenant Governor-in-Council Appointee Rebecca Huang, Eastern Region Councillor Charles Kidd, Western Region Councillor Len King, and Northern Region Councillor Serge Robert.

INSTALLATION OF NEW PRESIDENT

Past President Chong administered the oath of office to George Comrie as President for the 2016-2017 term and presented him with the President's Chain of Office along with the gavel of office.

CLOSING REMARKS BY PRESIDENT COMRIE

President Comrie thanked Past President Chong and expressed his appreciation for the dedication and enthusiasm with which he had approached his role as President.

President Comrie noted that Past President Chong is a collaborative leader and they have worked closely together during the past year to build cohesion among PEO's executive leadership in trying to address the important issues facing the profession. President Comrie stated that he plans to continue that collaboration in the coming year with Past President Chong, President-elect Bob Dony, and Registrar Gerard McDonald, and hopes to build on the good work that has been accomplished this past year.

President Comrie commented that when people suggest the President's one-year term is too short to accomplish much, he usually tells them it is not the role of the President to impose his or her vision or agenda on the organization for a year. Rather, he

sees the President as having three years to influence PEO's leadership to adopt and work towards a shared vision.

President Comrie then outlined three priority areas on which he feels PEO should focus.

He said the first priority area is strengthening core regulatory processes. He noted the progress made on several fronts in the past year, including the introduction of new requirements and processes for the limited licence and licensed engineering technologist designation that came into force on July 1, and the new processes for developing and implementing changes to enabling legislation (the *Professional Engineers Act* and Regulations). He shared that issuance of the first LET designation with OACETT will be on May 12.

President Comrie said that continuous improvement of a regulatory rubric is a constant and ongoing challenge for any regulator, and there is still work to be done in the areas of licensure, complaints and discipline, enforcement, professional guidelines and standards.

He added that one issue that will continue to occupy Council's attention in the coming year is that of continuing professional development/quality assurance, or as he prefers to think of it: professional practice risk assessment and mitigation. This latter nomenclature, he said, reflects the innovative approach being taken by PEO's CPD task forces. He said there is an opportunity to do something that will raise the bar on professional CPD and, at the same time, be much better attuned to the diverse needs and practice situations of licence holders than most CPD systems in place in engineering and other professions.

President Comrie said he is well aware that some members feel compulsory CPD, as commonly implemented, is a misplaced effort towards addressing an undefined problem. He said he accepts the assertion that most professional engineers are likely already doing what they need to do to maintain currency in their respective practices. At the same time, he said he firmly believes the status quo is not a sustainable option; that PEO cannot continue to require nothing of its members to maintain their licences other than payment of their annual dues. If nothing is done, PEO will continue to lose relevance and respect in the minds of government, of other professionals and even of PEO members. President Comrie stated that it is hard for PEO to claim it is regulating the profession when it has no reliable data on what members are doing by way of practice and when it has no data to substantiate the assertion that members are maintaining their competence as professionals. He added that, at the very least, PEO must begin to collect, on an annual basis, information on the scopes of practice of licence holders and their inherent risks, as well as the actions they are taking to mitigate those risks (including continuing education).

President Comrie then stated that his second priority item is that of exclusive rights to practise. He said his friend and colleague Peter DeVita, a former PEO President, is fond of saying that having a licence without an exclusive right to practise is like having a ticket to a movie theatre that is not showing any movies. He added that creative energy to find ways to expand and better enforce exclusive scopes of practice is needed.

President Comrie then explained why “capturing” emerging disciplines or sub-disciplines of engineering practice, such as communications infrastructure engineering (which deals with cyber security and protection of critical infrastructure that is networked) and nanomolecular engineering, is so important. He said that if PEO does not begin regulating these areas of practice (which clearly fall within the definition of the practice of professional engineering in the *Professional Engineers Act*) while they are still emerging, they will end up in the domain of unlicensed practice and be regulated by others.

President Comrie stated that strengthening PEO’s government relations program and finding ways to make it more impactful and influential is also critical. He said PEO needs the assistance of governments to enshrine and enforce regulation of these areas of practice. And, he added, in spite of the Ontario government’s refusal to proclaim the repeal of the industrial exception, this may be an opportune time to raise the subject with government, given they are expecting PEO to help strengthen regulation of structural adequacy assessments in the wake of the Algo Centre Mall collapse in Elliot Lake.

The President then touched on his third priority item: leadership development and succession planning. He said he is committed to the democratic self-governance of PEO but he does not believe it is reasonable for an organization like PEO to assume that everyone who volunteers comes with the background and skills necessary to effectively contribute. President Comrie said he has long felt that a better job could be done of ensuring that candidates for volunteer leadership in PEO have a solid understanding of the association’s mandate, roles and responsibilities, authorities and procedures.

He continued by saying that PEO has an opportunity to give something back to its dedicated volunteers by investing in their leadership development in terms of “soft” skills, such as facilitation, conflict resolution and team dynamics. He said funds have been allocated to develop a series of online modules that will cover the important background information needed by new PEO volunteers. He added that he hopes to eventually build a comprehensive leadership development program including hands-on workshop modules. This initiative, he said, will help ensure PEO has an adequate pool of skilled volunteer leaders for purposes of leadership succession.

President Comrie concluded by thanking everyone for their commitment to PEO and their support of a common goal: the strengthening of such a great profession, and the betterment of the public being served.

President Comrie then said he looked forward to striving together in the coming year to accomplish this goal.

INTRODUCTION OF INCOMING MEMBERS OF COUNCIL

President Comrie introduced the newly-elected members of the 2016-2017 council: Past President Thomas Chong, President-elect Bob Dony, Vice President Elected Patrick J. Quinn, PhD (HC), P.Eng., Councillor-at-Large Christian Bellini, P.Eng., Eastern Region Coun-

cillor Guy Boone, P.Eng., East Central Region Councillor Noubar Takessian, P.Eng., Northern Region Councillor Michael Wesa, P.Eng., West Central Region Councillor Danny Chui, P.Eng., and Western Region Councillor Gary Houghton, P.Eng.

CONCLUSION

President Comrie then declared the 94th Annual General Meeting of the Association of Professional Engineers of Ontario concluded. Σ

Gerard McDonald, P.Eng.
Registrar

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Len Murray, President & CEO, is pleased to announce the following appointments in our Ontario operations. To see the full list of Principal and Associate appointments go to www.klohn.com.

Welcome to our new Associate:



Robert Cross, P.Eng.

Recently promoted to Associate, Rob has extensive experience in the transportation, hydroelectric and mining sectors. He joined KCB in 2009 after receiving his M.Eng. in Geological Engineering and has since worked on projects in North America, South America, Africa, and Asia. Rob's entrepreneurial spirit led him to Toronto in 2012 to take on the role of office manager at our new location there.

New transfers to the Toronto office are:



Lawrence Clelland, P.Eng.

Lawrence Clelland, Principal, joined KCB in 2002. He brings over 30 years of international experience in the study, design and construction supervision of major civil engineering projects related to tailings disposal and power generation projects. As Regional Manager, Ontario for KCB's Mining Environmental Group, he has built our presence in the region and overseas.



David Dowdell, P.Eng.

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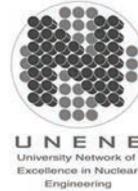
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[LETTERS]



LAST REMAINING MILL IN CANADA

It is not a surprise that Mr. Hogg (“Stainless steel for rebar?,” *Engineering Dimensions*, May/June 2016, p. 75) and Mr. Smith (“The many uses of stainless steel,” *Engineering Dimensions*, July/August 2016, p. 57) were not aware that there is, in fact, a steel mill in Canada capable of producing stainless steel for rebar, special bar and large forged products industries, so I felt compelled to set the record straight on the subject. In fact, a stainless steel melt facility does exist in Canada and ASW Steel Inc. in Welland, Ontario is that mill.

ASW boasts a long and rich lineage in the specialty steel industry dating back to the early 1900s as Atlas Steels Ltd. Stainless, and other specialty steel products used in critical applications, such as nuclear refurbishment projects, aerospace landing

gear products, land-based turbine, heavy equipment bearing and race production, and a myriad of military equipment and armament applications, have been the staple of the very existence of this mill since its inception. Atlas Steels developed stainless steel rebar capability in the 1990s when the Ministry of Transportation of Ontario made SS rebar a requirement for the bridge decks of all 400-series highways. ASW continues to possess the facilities and know-how to produce the product and has recently partnered with a domestic rolling mill to supply such projects again today. Re-entering this market is anticipated to occur in the next quarter.

Hopefully this short communication will provide some insight as to the last remaining melt facility in Canada capable of producing stainless steel products through electric arc furnace melting and argon-oxygen decarburization.

Tim Clutterbuck, P.Eng., Welland, ON

MAINTAINING PROFESSIONAL COMPETENCE

I have known President George Comrie for many years and respect his commitment to the engineering profession. I was particularly interested in his comments regarding continuing professional development (CPD), which I fully endorse as being even more relevant today than when he expressed his original ideas in 2004. When I graduated as a civil engineer 60 years ago, computers were virtually unheard of and slide rules and logarithms were the norm in undertaking calculations. Simple structural designs could take days, and while many of us “old-timers” have struggled to keep up with modern technology, I was humbled when I read a recent article in the UK publication *New Civil Engineer*.

If I may quote a phrase from the Comrie article in the July/August 2016 issue of *Engineering Dimensions* (“Better regulation still the goal, says Comrie,” p. 36): “At the same time, I firmly believe the status quo is not a sustainable option. PEO cannot continue to require nothing of its members to maintain their licences other than payment of their annual dues.”

The UK article was entitled “Cream of the Crop” and listed what it considered the 2016

Companies of the Year, following a “painstaking [selection] process” to choose the 100. When reading this article, I was humbled, as I have already stated, by how little I knew of the current state of innovation in the civil engineering industry. Quoting from the article: “In total the NCE 100 brought 666 different technology innovations to market in 2015. A good civil engineering practice is one that seeks to maximize the use of technology. Of the NCE 100, 81 per cent have a digital strategy and a board director responsible for its successful implementation. Equally, 81 per cent claimed to be ready to operate in a building information modelling (BIM) Level 2 environment. Proving that technical best-practice sharing runs through many of the hundred, on average 41 per cent of senior management sits on industry panels and boards with 13 per cent of all staff—on average—getting involved in industry committees and professional knowledge sharing groups.”

I could go on and quote many other statistics but the message to me is quite clear. Engineers in the 21st century have no option other than to maintain their professional competence and this means acting in a proactive manner right across the board from the most senior partner to those newly entered into the profession. I have now been retired for many years and I regret the fact that technology has now far outpaced my knowledge even though during my career I was honoured by receiving fellowships in both the UK and Canadian professional organizations. George Comrie’s comments are both timely and relevant.

Brian Lechem, P.Eng., Toronto, ON



OSPE OFFERS ENTREPRENEURSHIP RESOURCES

Regarding the article “Inspiring innovation and entrepreneurship within PEO’s Ottawa Chapter” in *Engineering Dimensions*, September/October 2016 (p. 37), I’m pleased to advise on how the Ontario Society of Professional Engineers (OSPE) is serving our membership in this area.

Firstly, I’d encourage all readers to check out the resources OSPE has made available to our membership regarding entrepreneurship. You’ll find a growing set of links to resources available to all of our members, province-wide, addressing the topics identified in the article.

As a partner in the Ottawa activities expressed in the article, I’m pleased to say OSPE has established a business and operating model to bring to our membership networked resources, a framework for any interested chapters in engaging in local entrepre-

neurial networking events and linkages to academia, industry and government, not to mention colleagues and mentors.

Regarding organizational roles, the regulatory role of PEO and the advocacy role of OSPE, each organization optimized to their roles and mandates, clearly this entrepreneurial support role belongs to OSPE. It was good and appropriate for PEO to clearly and correctly identify its position, and this will, in fact, ensure we bring the right resources to support the entrepreneurial initiatives. The “two sides of the same coin” collateral further clarifies the roles of PEO and OSPE.

OSPE is pleased to engage with chapters, university or industry groups to ramp up the engagement of our members in fuelling the economic growth and success of Ontario. The society will move an entrepreneurship agenda forward within our means and based on our strategic goals, with an interest in first and foremost serving those who support OSPE through active membership.

Michael Monette, P.Eng., Ottawa, ON

President and chair, Ontario Society of Professional Engineers

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.

OSPE TO TAKE A LEADING ROLE

I was very happy to read of the success that has been achieved with the Ottawa Chapter Entrepreneurship Program (“Inspiring innovation and entrepreneurship within PEO’s Ottawa Chapter,” *Engineering Dimensions*, September/October 2016, p. 37). What Dr. Das and the project team have accomplished with the pilot program could be a model for other chapters, PEO or even other provincial regulators.

As one of two Eastern Region councillors in 2015, however, I’d like to correct a misimpression that may arise from Dr. Das’ article. The Regional Councillors Committee did not vote to withhold support for the program because it lacked merit, but because it was unclear if it was within PEO’s mandate to unilaterally run such a program. Much discussion occurred prior to our decision, with the resulting consensus being that this program fell mostly within the jurisdiction of the Ontario Society of Professional Engineers (OSPE). That would not preclude PEO’s involvement, but would require that OSPE have a leading role. Indeed, a joint program of this nature could be an ideal opportunity to further strengthen the relationship between OSPE and PEO.

Charles Kidd, P.Eng., Peterborough, ON

Former PEO Eastern Region councillor

[LETTERS]

STRENGTHENING OUR POSITION

I believe this article by Howard Brown and Blake Keidan, especially the illustration of two identical lathes, has completely negated the point that PEO has been trying to get across to industry leaders and the government to abolish the industrial exception (“Safety in manufacturing: Can you spot the difference?” *Engineering Dimensions*, September/October 2016, p. 23).

The illustration of two identical lathes with identical guards will raise the logical questions in the mind of the industrial managers: “Why should I hire an engineer to design a safety guard when my own experienced people can do the same thing?” I am sure the same people in government that PEO is trying to convince would raise similar questions.

A far better illustration would have been to show one machine with a jury-rigged homemade guard, and one with a professional appearance.

With 34 years in a factory environment, and many of them in machine shops, I also take exception to their statement that lathes are dangerous—all machine tools can be dangerous in inexperienced hands. But machinists are highly trained, highly experienced and very safety-conscious people. In the plant I was in, all machinists are high-school graduates and have four years’ apprenticeship before they become journeymen. These people are professionals; they can design, build and install any safety guard as well as, or probably better than, an outside engineer.

Also, in many manufacturing plants, the product, tools and processes are proprietary, requiring very special equipment. How many engineers are versatile enough to have the specialized knowledge to design equipment better than the people who work with it?

Another point I would like to make is that many machinists have expressed to me that guards are, in themselves, dangerous. They can induce a false sense of security and thus complacency. Also, they can interfere with accessibility, as frequently machinists must access the machine (lathes particularly) while running to polish the workpiece with emery strips or measure with calipers.

I am not disagreeing with PEO’s position on the industrial exception but I believe that articles such as this one have weakened rather than strengthened their argument.

Clayton M. Morgan, P.Eng., Newcastle, ON

SOFTWARE ENGINEERING CHALLENGES

The President’s Message in the September/October issue presented some interesting issues related to the emerging discipline of software engineering, among other emerging disciplines (“Regulating emerging engineering disciplines,” *Engineering Dimensions*, p. 3).

Software is almost ubiquitous in most major systems and processes and forms an essential component of both the normal operation but, more importantly, the emergency operation and safety systems of the plant. For nuclear plants, this is especially so as the controls are software driven as are the shutdown systems. Hence, they affect both the safety and the operating status (hence the financials) of the plant.

In addition, software also affects the aviation industry (avionics, flight controls, etc.) and also the defense industries. We do have a sizable aerospace industry. Hence, when we think of regulating the software engineering discipline, I feel we have to tread carefully.

Some industries, notably defense and aerospace, may have their own regulations and standards,



hence could there be overlap and over-regulation? Would public and industry perception really be that we are adding value?

Some safety systems have components that are microprocessor-based, so would the firmware in these devices be subject to regulation—i.e. certification by a licensed software engineer? If the product is manufactured overseas, the source code may not be made available as it is the manufacturer’s IP, so how would

the software engineer certify it? In many cases, the system and its software may be certified by a third party overseas (commercial grade dedication), so what would the software engineer’s role be in this case? I have faced this in my career.

Then there is the question of software QA. In regulated industries, this is fairly rigorously implemented, hence would there be value added by having a certified software engineer certify it?

While the principle espoused here may be laudable, the implementation may be a challenge.

Ken Dias, P.Eng., Scarborough, ON

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