

FALL 2023

ENGINEERING DIMENSIONS

ASSESSING
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2024
Council elections
call for candidates
inside



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ENGINEERING DIMENSIONS

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 Send your letter to the editor to editor@peo.on.ca. Published letters may be edited for length and clarity.

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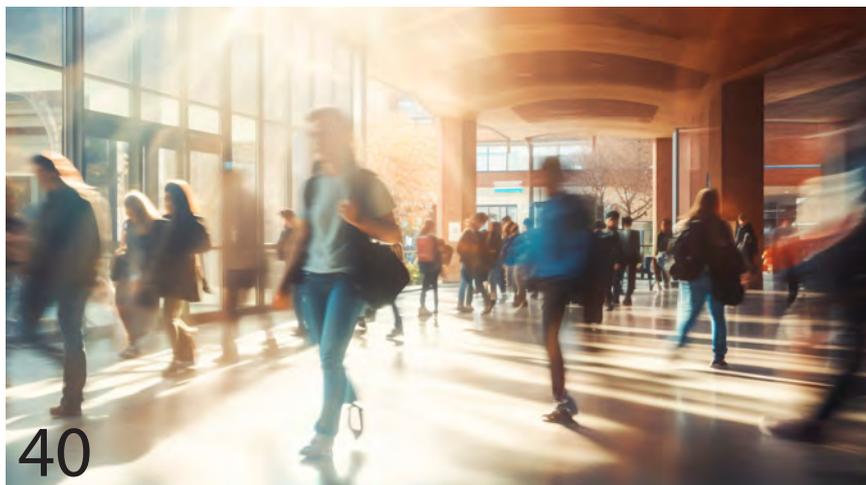
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ENGINEERING DIMENSIONS

PUBLICATIONS STAFF

Editor

Nicole Axworthy
editor@peo.on.ca

Associate editor

Marika Bigongiari

Associate editor

Adam Sidsworth

Senior graphic designer

Cindy Reichle

Director, communications

Katarina Praljak

Manager, communications

Duff McCutcheon

Digital communications

coordinator

Michelle Yiu

CONNECT WITH US



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Ontario



ADVERTISING SALES

DOVETAIL COMMUNICATIONS

Senior account executive

Vince Naccarato
vnaccarato@dvtail.com

Engineering Dimensions (ISSN 0227-5147) is published quarterly by Professional Engineers Ontario and is distributed to all PEO licensed professional engineers.

Engineering Dimensions publishes articles on regulatory business and professional topics of interest to the professional engineer. The magazine's content does not necessarily reflect the opinion or policy of PEO Council, nor does PEO assume any responsibility for unsolicited manuscripts and art. All material is copyright. Permission to reprint editorial copy or graphics should be requested from the editor.

Approximately \$5.00 from each membership fee is allocated to *Engineering Dimensions* and is non-deductible.



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P.Eng., ICD.D

Vice president, regulatory operations and deputy registrar

Americo Viola, MBA, P.Eng.

Vice president, policy and governance

Dan Abrahams, LLB

Vice president, corporate operations and digital transformation

Arun Dixit, P.Eng.

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president@peo.on.ca

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CHANGE IS A GOOD THING

By Nicole Axworthy



For over a century, PEO's core function has been to license Ontario's professional engineers. Given its long history, you'd think the requirements for obtaining the licence are pretty much settled. But all things evolve, and PEO, like all other regulators, must be prepared to implement occasional changes when needed.

That is precisely what happened earlier this year, following the implementation of amendments to Ontario's *Fair Access to Regulated Professions and Compulsory Trades Act* (FARPACKTA), which aims to promote fairness and transparency in the licensing process of regulated professions,

particularly for international candidates. The legislation mandates that all the province's regulators, except in healthcare, meet a six-month target for processing most licence applications for international applicants and eliminate Canadian experience requirements, among other things.

For PEO, meeting some of these requirements meant overhauling the process, and in this issue, we delve into what's new. In "Assessing academics: Making the case for a Recognized Programs List" (p. 40) and "Technical exams: Complementing candidates' international engineering education" (p. 43), Associate Editor Adam Sidsworth explains how the changes affect international candidates, notably the implementation of a Recognized Programs List for degrees obtained outside Canada and a standardized technical exam program that must be completed before the academic requirement for licensure can be considered complete.

Eliminating the Canadian experience requirement for international candidates has been a topic of discussion for decades, and in a leading move, PEO chose to remove this requirement in May—well before FARPACKTA's deadline of December 2, 2023. As part of this change, PEO implemented a competency-based assessment method for evaluating the experience of all licensure candidates. As Associate Editor Marika Bigongiari explains in "Assessing experience: The road to CBA" (p. 46), the shift was preceded by a decade-long journey that was shaped by key milestones, and the new method focuses on a broad spectrum of key competencies to help ensure candidates can practise effectively and safely.

Speaking of competence, just a few weeks ago Council approved a motion to exempt licence holders who are on fee remission from PEO's mandatory continuing professional development program, PEAK. This means retired engineers, who make up the bulk of the fee remission program, are no longer required to participate in any part of the PEAK program, as of January 2024. Find out why on page 57.

Also of note, now that we're in elections season, is the Council call for candidates. Nominations open on October 16 for several positions. I encourage you to consider the impact you could make by influencing regulatory initiatives at the profession's highest level. Find more details starting on page 20. **e**

LET US KNOW

To protect the public, PEO investigates all complaints about unlicensed individuals or companies, and unprofessional, inadequate or incompetent engineers. If you have concerns about the work of an engineer, fill out a Complaint Form found on PEO's website and email it to complaints@peo.on.ca. If you suspect a person or company is practising engineering without a licence, contact PEO's enforcement hotline at 800-339-3716, ext. 1444, or by email at enforcement@peo.on.ca.



PREPARING PEO FOR FUTURE CHANGE

By Roydon Fraser, PhD, P.Eng., FEC



Where is the future of engineering regulation headed? I think this is a critical question, and we need input from all stakeholders.

As I shared in my last message, we can look back at the trends in history to get a sense of where the profession appears to be headed. By doing so, we can try to understand and anticipate how to be prepared for, and best adapt to, what the future may hold. For example, the First Industrial Revolution (mechanization, steam, water power) lasted about 100 years, the Second Industrial Revolution (mass production, electricity) lasted about 80 years, the Third Industrial Revolution (automation, robotics, IT systems) lasted about 70 years, the Fourth Industrial Revolution (machine learning, cloud computing, cyber physical systems) is about 25 years old and we are already talking about being on the cusp of the Fifth Industrial Revolution (artificial intelligence, quantum computing, fusion).

From this brief description of the Industrial Revolutions, one observable trend is the shorter and shorter temporal length of each subsequent Industrial Revolution. This reveals that technology not only changes, but that these changes are fast and occur at an ever-increasing rate. And from this observation we might anticipate that there will be an ever-growing number of emerging engineering disciplines. As we head into the future, should these emerging disciplines be regulated to ensure the public's continued safety?

PEO cannot remain stagnant. It needs to change with the times, so as we enter the Fifth Industrial Revolution and technology continues to advance, PEO is working to meet the challenges that will emerge to continue to serve and protect the public interest. In addition to our own efforts, and similar to what has happened in some other provinces, the Ontario government has stepped into a more active role in overseeing the regulated professions, notably with amendments to the *Fair Access to Regulated Professions and Compulsory Trades Act* (FARPACTA), which this year saw the elimination of the one year of Canadian experience under the supervision of a P.Eng., as well as the imposition of a strict time limit for licensing decisions to be made.

PEO responded to FARPACTA by replacing the Canadian experience with competency-based assessment experience requirements, and by overhauling the admissions process. PEO also needed to suspend the Engineering Intern (EIT) program in response to FARPACTA, since the required engineering work experience under the new licensing process must be acquired before applying. It would be fair to say that PEO, along with other non-healthcare-sector regulators, was heavily impacted by FARPACTA changes.

PEO's FUTURE VISION

So, the question naturally emerges: How can PEO prepare for future change? And when change comes again, as it inevitably will, what vision of the future will guide PEO in selecting the next near-term path? Furthermore, with PEO's mandate to serve and protect the public interest, how will one select between options if there is no common understanding of how to best to do this? This is where PEO's initiative this year to develop a 2050 vision statement becomes important. And I am glad to say the response to a recent request for volunteers to help develop this vision statement was overwhelming, with more than 100 individuals coming forward to provide their input.

Over the coming months, all PEO stakeholders will be updated on PEO's 2050 vision statement development and given opportunities to contribute. For a vision statement to have longevity, it must be a collaborative, consensus-building effort with input from all major stakeholders. These stakeholders include not only current professional engineers, but also government, industry, the Ontario Society of Professional Engineers, the Ontario Association of Certified Engineering Technicians and Technologists, students and recent graduates, entrepreneurs and others.

PEO's 2050 vision statement process has just started. And while I do not know what direction the developed vision statement will take, I do know that with a common future-looking vision, PEO will be prepared to meet the future challenges of change, and that together, we will become stronger with each step forward. [e](#)

MAKING ENGINEERING STRONGER WITH EDI

By Jennifer Quaglietta, MBA, P.Eng., ICD.D



As I prepared for Council's September meeting, I was inspired by the efforts of staff, who work diligently behind the scenes to make sure councillors are adequately prepared. This reminded me of Michelle Obama, who, in her book *The Light We Carry*, refers to her kitchen table: "No one person, no one relationship, will fulfill your every need...Not everyone can, or will, show up precisely when or how you need them to. And this is why it's good to always continue making room at your table, to keep yourself open to gathering more friends. You will never not need them, and you will never stop learning from them."

As CEO/registrar, I am tasked with overseeing the 2023–2025 Strategic Plan, under which PEO has dedicated itself to meeting four strategic goals: improving PEO's licensing process without compromising public safety, optimizing PEO's organizational performance, implementing a continuous governance improvement program and refreshing PEO's vision to ensure all stakeholders see relevance and value in PEO. In March, I presented Council with PEO's operational plan, which helps staff and Council ensure we are meeting these goals. I am happy to say that by September, staff have completed nine of our 23 deliverables, with an additional eight over half complete. We have:

- Rolled out our mandatory continuing professional development program, PEAK;
- Developed measurables of our licensing process under the *Fair Access to Regulated Professions and Compulsory Trades Act* (FARPACTA);

- Presented a FARPACTA policy and approach;
- Established a framework to update PEO's standards and guidelines;
- Developed a customer service model;
- Revised our board manual for PEO councillors;
- Developed a Council engagement session; and
- Importantly, developed a regular report of our strategic planning to Council.

I have many amazing people at my PEO table, and I never stop learning from them. Together, we accomplish so much.

MAKING LICENSING MORE INCLUSIVE

PEO must continually reevaluate its licensing process for fairness and accessibility. We did precisely this during the rollout of PEO's FARPACTA-compliant licensure process this spring. PEO spent over a year developing an updated process that makes it quicker and easier for internationally trained applicants to receive a licensing decision.

We continue to evaluate our operations for women and Indigenous Peoples, too. On September 26, I addressed stakeholders at PEO's annual 30 by 30 check-in. Under the Engineers Canada-led initiative, PEO and all other provincial and territorial engineering regulators in Canada aim to have women represent 30 per cent of new licence holders by 2030. In 2022, 20.5 per cent of new PEO licence holders identified as women, who represent just 13.1 per cent of all PEO licence holders.

To further our data collection, PEO contracted experts Sonia Kang, PhD, and Joyce He, PhD, in 2021 to conduct a gender audit of PEO's licensing process and internal operations. Last year, Kang and He reported their preliminary findings, which indicated that women may not be as successful as men at completing the required 48 months of engineering experience for licensure. Kang and He enter the second stage of their audit this fall, which involves interviews with past, current and potential applicants for licensure. Notably, they will speak with women who applied under PEO's legacy process, which allowed applicants to apply for licensure while obtaining their engineering experience.

I look forward to hearing what Kang and He learn, particularly since our new FARPACTA-compliant model now requires the completion of all 48 months of engineering experience prior to applying for licensure. If the experience component is indeed a barrier for women, we may need to reevaluate our licensing process.

Additionally, this past September 30 was National Day for Truth and Reconciliation, which honours children who never returned home and the survivors of Canada's residential schools. PEO marked the holiday a week earlier with staff participating in a workshop led by Makatew Workshops and a lunch provided by Tea-N-Bannock.

September also marks the beginning of PEO's working relationship with Indigenous and Community Engagement, which is working collaboratively with staff and PEO's Anti-Racism and Anti-Discrimination Exploratory Working Group to lead PEO's Indigenous outreach with various organizations. Indigenous Peoples represent over 3 per cent of Canada's workforce yet represent under 1 per cent of Canada's engineers. PEO can do much better. **e**

PEO SEEKS FEEDBACK ON ENGINEERING INTERN PROGRAM SUSPENSION

Online surveys aimed to gauge the impact of the Engineering Intern program's suspension to new applicants for licensure.

By Adam Sidsworth



“THE SURVEYS ARE PART OF OUR COMMITMENT TO ENGAGE WITH STAKEHOLDERS ON MATTERS OF IMPORTANCE TO PEO’s REGULATORY MANDATE.”
— CHARLES BLANCO, PEO’s MANAGER, STAKEHOLDER RELATIONS

THE EVOLUTION OF PEO’s SUPPORT PROGRAMS

The EIT program was originally created in 2010 to support engineering graduates who apply for licensure as they gained the required 48 months of engineering work experience. However, the program became impractical in its current form following the launch of PEO’s updated licensure application process on May 15, 2023. Now, candidates are required to obtain both the academic and work experience requirements prior to applying for licensure (see “PEO to suspend its Engineering Intern program,” *Engineering Dimensions*, Winter 2023, p. 8).

However, the more than 14,500 EITs who were already enrolled in the program at the time of suspension are continuing to be supported through their licensing journey until such time that the program is fully phased out or until they no longer meet the requirements.

Anyone wishing to engage with PEO on this issue can email engagement@peo.on.ca.

Throughout the summer, PEO conducted a series of online surveys with key stakeholders to obtain feedback on the suspension of the regulator’s Engineering Intern (EIT) program to new applicants for licensure.

The surveys, which closed on September 18, were tailored towards employers of engineers and EITs, current EITs, current licence holders and current engineering students and are part of PEO’s ongoing efforts to evaluate the impact of the program’s suspension. The surveys asked stakeholder groups questions such as how valuable the program was to employers of engineers and EITs, if it provided greater potential for employment, and what features are recommended if a new version of the EIT program were to be developed.

Although PEO has yet to decide if it will replace the program, the survey responses will help the regulator determine how prospective applicants can be best supported on their path to licensure.

The EIT program consultation is the first major initiative of PEO’s external relations department, which was created last year to engage with various stakeholders on emerging issues and matters related to PEO’s regulatory mandate so it can identify and address any gaps in the regulator’s operations.

“The surveys are part of our commitment to engage with stakeholders on matters of importance to PEO’s regulatory mandate,” says Charles Blanco, PEO’s manager, stakeholder relations. “We appreciate the feedback and comments received, and we will be reviewing all this information to gauge the effects of the suspension of the EIT program have had on various stakeholder groups.”



Professional Engineers
Ontario

Mandatory continuing professional development for licensed engineers



PEO's mandatory Practice Evaluation and Knowledge (PEAK) program is designed to help licence holders maintain their professional knowledge, skills and competence as engineers and is in keeping with PEO's regulatory, public protection mandate as set out in the *Professional Engineers Act*.

Licence holders must comply with the annual program unless they are automatically exempt (those enrolled in PEO fee remission, like retirees, from 2024). Starting in 2024, not complying with PEAK obligations can lead to an administrative licence suspension. For more details, visit www.peopeak.ca.

PEO ADVANCES PLAN TO UPDATE 6 PRACTICE GUIDELINES

PEO plans to engage with licence holders and other external stakeholders when updating six practice guidelines.

By Jordan Max



PEO has developed a prioritized schedule to review and possibly revise its current practice guidelines and standards and develop new ones to ensure these resources are current and relevant to engineering practice. By providing up-to-date guidelines and standards, PEO will assist licence holders in improving their practice and maintaining their own professional knowledge.

The plan for prioritizing and scheduling reviews was reviewed by PEO's Regulatory Policy and Legislation Committee in August.

For the remainder of 2023, PEO staff will start revising the content of six existing guidelines identified by the Professional Standards Committee as needing revisions. The chosen guidelines—some of which go back as far as 1993—include:

- *Services of the Engineer Acting Under the Drainage Act;*
- *Professional Engineers Providing Mechanical and Electrical Engineering Services in Buildings;*
- *Professional Engineers Providing Services With Respect to Road, Bridges and Associated Facilities;*
- *Professional Engineers Providing Land Development/ Redevelopment Engineering Services;*
- *Professional Engineers Providing Geotechnical Engineering Services;* and
- *Engineering Services to Municipalities.*

Over the next two years, PEO will also prioritize reviews of other guidelines that have not been reviewed in the past five years, based on a combination of factors such as the time since last review, estimated audience size by discipline and whether they relate to provisions of the *Professional Engineers Act* (PEA) or other government statutes or regulations, such as Ontario's Building Code.

When updating guidelines, PEO will engage with licence holders with appropriate subject-matter expertise to ensure the guidelines are up-to-date and reflect well-established engineering practices. Additionally, external stakeholders will also be engaged to comment on draft guideline revisions.

MARKETING PRACTICE RESOURCES

Under the PEA, PEO establishes, maintains and develops standards of qualification and practice for Ontario's more than 90,000 licence holders practising in 51 recognized engineering disciplines. Located in the Knowledge Centre of PEO's website, these take the form of four performance standards, which are embedded in PEO's regulations; 34 guidelines and one practice standard, which make up the bulk of PEO's advice on engineering best practices; and six bulletins, which provide advice and interpretations on urgent issues until a related guideline can be developed. Professional practice articles on frequently asked questions are also published in *Engineering Dimensions*.

Earlier this year, PEO staff worked to better understand how to market PEO's guidelines to licence holders and other stakeholders (see "How PEO is enhancing its practice resources," *Engineering Dimensions*, Summer 2023, p. 20). As part of this work, staff mapped the practice guidelines and standards to licence holders and engineering disciplines most closely related to each guideline or standard's subject matter. This was made possible with PEO's January 2023 transition to a mandatory continuing professional development program, PEAK, which requires all practising licence holders to declare the engineering disciplines in which they currently practise.

Additionally, PEO is developing a plan to communicate with licence holders and other stakeholders to gauge the relevance and currency of the practice guidelines. In September, PEO sent out an online survey to all practising licence holders to identify their current professional practice issues, risks and challenges; how they resolve them; and to give feedback on PEO's current professional practice resources. It is anticipated that the results will indicate new subject topics or issues for PEO to develop into practice guidelines or standards or how to revise existing ones.

Jordan Max is PEO's manager of policy.

TOWER CRANE REGULATION CHANGES



The Ontario Ministry of Labour, Immigration, Training and Skills Development recently announced changes to improve crane safety on construction sites to keep workers and the public safe and avoid work stoppages related to tower crane design, erection and inspection requirements for professional engineers in Ontario Regulations 213/91 (Construction Projects) and O. Reg. 420/21 under the *Occupational Health and Safety Act*, some of which will come into effect on January 1, 2024, and others the following year. The complete proposal may be found on *Ontario's Regulatory Registry*.

Professional engineers are required to stay up to date and comply with all relevant codes, standards and regulations as provided by the government or body issuing them. PEO will be issuing a Practice Bulletin to provide more detail for professional engineers doing this work while we update our *Review of Tower Cranes as Required by the Occupational Health and Safety Act Practice Standard*.

If you perform this type of work on tower cranes and are interested in assisting PEO with updating our practice standard to reflect the pending regulation changes, please email to engagement@peo.on.ca.

SUBSCRIBE TO UPDATES

In July, PEO added a new subscription feature to the Knowledge Centre of its website to enable licence holders and members of the public to subscribe to email notices of guideline and standard updates, as well as opportunities to comment on the revising of guidelines, standards and possible supporting tools.

When you subscribe, you'll be asked to provide your name, email address, the engineering industry or sectors you work in and which categories of guidelines you would like to be kept updated on. All submitted information will be kept confidential.

PEO's subscription service already has 3300 subscribers.

By subscribing to updates on PEO's practice guidelines and standards, you'll help PEO more effectively regulate the practice of professional engineering and improve your own engineering practice.

A screenshot of a web form titled "Practice Guidelines and Disciplines Subscription for Updates". The form has a teal header with the title. Below the header, there is a paragraph of text explaining the purpose of the subscription. The form contains three input fields, each labeled with a number and a "Required" asterisk. The first field is for "First name", the second for "Last name", and the third for "Email address". Each field has a placeholder text "Enter your answer".

BC REGULATOR TO DEVOLVE ADVOCACY ACTIVITIES TO SEPARATE BODY

Engineers and Geoscientists BC plans to transfer its advocacy activities to a newly formed organization by July 2025.

By Adam Sidsworth



British Columbia's engineering and geoscience regulator plans to devolve its advocacy activities to a separate, independent organization by July 2025.

Engineers Geoscientists BC's (EGBC) announcement follows a self-review and -evaluation of its operational requirements under the province's *Professional Governance Act* (PGA). Among the current EGBC activities and programs that will be transferred to the new organization are EGBC's branches—equivalent to PEO's chapters—where EGBC registrants are able to participate in seminars, tours and continuing education opportunities; affinity program, which offers discounts to registrants for various insurance, hospitality and other services and partially funds EGBC programs and events; and Career Listings, which provide paid advertisements of employment positions for EGBC registrants.

Other programs determined not to fit EGBC's mandate will be cancelled outright, including the Awards and Recognition program; sponsorships for external events and programs; and School Outreach and Career Awareness. EGBC's Divisions, which allow registrants with common technical or other interests to share information and review and develop policy, will be transferred to current or new advisory groups.

EGBC'S REGULATORY FOCUS

EGBC will concurrently increase its focus on its core regulatory and public-protection mandate by targeting some key areas as defined by the provincial Office of the Superintendent of Provincial Governance (OSPG), which oversees EGBC and five other regulatory bodies. The key areas include:

- Increasing EGBC engagement with post-secondary students and engineering faculties to reinforce engineering and geoscience licensing requirements;

- Investing more resources in equity, diversity and inclusion (EDI) initiatives, particularly relating to Indigenous truth and reconciliation; and
- Freeing up time to further the initiatives of EGBC's current strategic plan.

"Engineers and Geoscientists BC has undergone a significant evolution over the past three years," notes EGBC CEO Heidi Yang, P.Eng. (BC), FEC, FGC (Hon). "With most PGA requirements now in place, we felt the time was right to make this change...Divesting advocacy activities to an independent organization creates clarity for both of our roles and allows both regulation and advocacy for the professions to flourish."

EGBC is dedicating \$250,000 in seed money for the establishment of the advocacy body, with the body's board of directors expected to be in place this fall. To help facilitate the transition, EGBC has also contracted the services of an external consultant who previously helped two Alberta professions devolve their advocacy activities.

PGA-MANDATED WORK

EGBC's decision to discontinue its advocacy activities comes nearly two years after the regulator initially decided to maintain most of its advocacy activities, albeit with some modifications. After EGBC consulted with the OSPG following the full implementation of the PGA in 2021, EGBC determined that most advocacy-focused activities could continue so long as they were adjusted to support EDI and promote the engineering and geoscience professions to girls and other underrepresented groups (see "BC engineering and geoscience regulator rejects creation of separate advocacy body", *Engineering Dimensions*, January/February 2022, p. 13).

According to Meghan Archibald, director, communications and stakeholder engagement at EGBC, the initial 2021 decision to maintain most EGBC activities was made because the regulator was busily implementing its new regulations under the PGA. "Our initial advocacy review in 2021 was conducted to determine what we *could* do within the boundaries of the *Professional Governance Act*," notes Archibald. "As our organization was undergoing a significant amount of change at the time transitioning to new legislation, we opted to maintain most of these programs to support organizational stability and continuity. However, as we began the work of delivering our 2022–2027 Strategic Plan this year, we reviewed our programs through the lens of what we *should* do."

Ultimately, EGBC's responsibility is to focus on its core mandate of public protection. "This led to an important but difficult decision to end some of these programs next year while maintaining others in the hopes of transferring them to the newly formed advocacy body," Archibald added.

PEO COUNCILLOR ADDRESSES 2SLGBTQ+ DIVERSITY AT PEO



Eastern Region Councillor Michelle Liu, MASc, JD, P.Eng. (she/they) (above right), who officially took their Council seat earlier this year, was invited by CEO/Registrar Jennifer Quaglietta, MBA, P.Eng., ICD.D (above left), to have a discussion with PEO staff at a coffee chat at PEO headquarters on May 27. Quaglietta and Liu's chat focused on the importance of increasing queer visibility within the engineering profession and at PEO.

"PEO and engineers have a duty arising from [PEO's] statutory public-interest mandate to acknowledge the diversity of the public that we're supposed to serve," Liu told PEO staff. "[PEO's Anti-Racism and Equity] Code is a small first step, but so much more needs to be done to get engineers to attend to the social impact of their work."

PEO's Anti-Racism and Equity (ARE) Code, which contains eight principles, was approved by Council in 2022 to codify PEO's commitments to advance its fairness, human rights and public-interest obligations under the law and serves to inform PEO's equity, diversity and inclusion (EDI) strategies and actions.

"Changing the system that is hundreds of years in the making requires patience and long-term commitment in both decision makers and advocates," Liu said. "We have to understand that the dial moves slowly and not to give up when we feel like progress is not occurring quickly enough."

Quaglietta acknowledged the engineering profession's historically slow embracing of 2SLGBTQ+ inclusivity. "Equity-seeking groups and allies should not become complacent at the first sign of progress. In fact, progress and the rights that 2SLGBTQ+ persons enjoy in Canada are extremely precarious at the moment," Quaglietta said. "Provinces are passing laws that restrict 2SLGBTQ+ contents, municipalities are banning Pride flags, school boards are implementing policies that reveal teachers' sexual orientation or gender identity and more."

Liu, who is likely the first openly 2SLGBTQ+-identifying councillor at PEO, has focused their engineering and academic career on increasing 2SLGBTQ+ visibility and EDI in the engineering profession (see p. 56). Liu, who also sits on the Equity, Diversity, Inclusion and Accessibility Task Force of the Ontario Society of Professional Engineers, co-created and -funds the Liu-Kennington Award for the 2SLGBTQ+ Engineering Community at the University of Waterloo (see "Two Waterloo alumni work for greater 2SLGBTQ+ visibility in engineering," *Engineering Dimensions*, September/October 2022, p. 31). Liu subsequently became the first person to concurrently pursue their law degree and PhD in civil engineering at the University of Ottawa. Their engineering PhD research focuses on using EDI frameworks to critically examine engineering professional norms and technological designs.

ENGINEERS CANADA PUBLISHES GUIDELINE ON INDIGENOUS ENGAGEMENT

The guideline aims to promote meaningful engagement between engineers and Indigenous communities.

By Adam Sidsworth

The organization representing Canada's 12 provincial and territorial engineering regulators has released a guideline for engineers and engineering firms on how to collaborate with Indigenous communities seeking engineering services.

Engineers Canada's *Guideline on Indigenous Consultation and Engagement*, sponsored by the organization's Canadian Engineering Qualifications Board (CEQB) and developed in conjunction with British Columbia-based consulting engineering firm Urban Systems, was designed within the context of the Royal Commission on Aboriginal People, Truth and Reconciliation Commission's Calls to Action, Missing and Murdered Indigenous Women and Girls Calls for Justice and the United Nation's Declaration on the Rights of Indigenous Peoples. Its aim is to help engineers and engineering firms engage with Indigenous communities in a meaningful way.

"Engagement... involves building relationships outside of legal obligations with the intention of establishing trust and understanding and seeks reciprocity between parties, regardless of whether the engineer or firm is acting on behalf of the Indigenous community or for a proponent not affiliated with the community," the report notes.

Importantly, the guideline has a section called Principles of Respectful Engagement, which offers five key fundamental considerations that engineers should use when engaging with Indigenous communities. They include:

- Building trust before projects;
- Engaging early to maximize community involvement;
- Resourcing engagement to meet the project's and community's needs;
- Establishing and maintaining effective communication; and
- Observing community protocols to demonstrate respect.

LEARNING ABOUT INDIVIDUAL COMMUNITIES

According to Gayle Frank, senior advisor for Indigenous relations and truth and reconciliation at Urban Systems, engineers and engineering firms working with Indigenous communities need to learn about each individual Indigenous community's culture and engineering needs before bidding on projects. "I have really technical people like engineers saying to me, 'I'm used to writing technical reports. How do I incorporate Indigenous language and culture into it?' And I respond, 'What's their word for



water? And what's their word for flowing water and stream? And what's their actual place name?' And they're like, 'I don't know. The only people I interact with in the community are non-Indigenous,'" notes Frank.

Frank co-led and -wrote the guideline with Danilo Caron, EIT (BC), engineer-in-training at Urban Systems, who notes: "We had to emphasize that this guideline isn't a checklist. We tried to identify the principles that are really important, and then we gave people examples of how to walk through an engagement process. The takeaways are those principles."

Caron notes that the guideline is purposely broad, in part because Indigenous communities across Canada are heterogeneous and in part because the guideline's audience potentially ranges from engineers who may have had little contact with Indigenous communities to engineers who have engaged with Indigenous communities for decades.

"It requires a humility for consultants to enter a space where they're not experts," notes Caron. "To ask questions that are respectful and also take ownership for when they make missteps and understand that the person who does the operating and the administrative work within the band are often times the same person. If you're new to this, you need to understand this because otherwise you're not going to do your best work."

DEVELOPING THE GUIDELINE

Frank and Caron led the research process with both Indigenous and non-Indigenous engineers and communities from across Canada, albeit virtually, due to the then-ongoing lockdowns related to COVID-19. However, according to Frank and Caron, the virtual sessions turned out to be a blessing, accommodating more participants to engage in the process than if they had had to be flown into Ottawa or Vancouver.

Frank and Caron led multiple engagements, accompanied by Elder Norman Meade, an elder-in-residence at the University of Manitoba's Indigenous Student Centre, who grounded the engagement sessions in culture and protocols. "We conducted a virtual talking circle," notes Frank. "We used the wheel of

names to mimic how people would be sitting in a circle. We would ask questions and give them the floor and talk through all of their thoughts and questions. At the end, we gave them the space to write out and articulate their thoughts.”

Caron concurs, adding: “We were collecting data that would eventually inform the guideline, but it wasn’t necessarily people saying, ‘It’s got to have this and this.’ We were trying to create an engagement process.”

CREATING A LIVING AND EVOLVING DOCUMENT

Noting that British Columbia and Manitoba’s engineering and geoscience regulators have already adopted Engineers Canada’s Indigenous guideline into their practice, Stephanie Price, P.Eng., FEC, executive president,

regulatory affairs, for Engineers Canada, is hopeful that other engineering regulators will also embrace the guideline. “[It] was designed to provide a flexible framework that recognizes and responds to the diverse identities and needs of Canada’s 630-plus Indigenous communities,” Price says. “Engineers can use this guideline to support a wide variety of projects and thereby better protect the Indigenous public. And communities can use it as a basis for holding engineers accountable.”

Price, who notes that the guideline was initiated by Engineers Canada’s Indigenous Advisory Committee, which is composed largely of Indigenous engineers, observes that Engineers Canada remains committed to increasing Indigenous voices in engineering. “We recognize that it is just a first step in a much larger process of truth and reconciliation. We are committed to strengthening relationships and to contributing to improved community outcomes and collective healing, and we would love to hear from users of the guideline on how it can be improved,” Price says.

PEO TO DEVELOP A NEW VISION STATEMENT

OUR STRATEGIC GOALS
Our goals and accompanying strategic priorities define what success looks like and describe the specific work we will undertake to drive our mandate and mission. Specific strategies and action plans, with targeted completion dates, will flow from these goals and priorities.

Improve PEO's licensing processes without compromising public safety
We will do this by:

- Enhancing the application process so that it is fair, transparent, accessible and efficient and maintains competency and complies with FARR/CRS by July 1, 2022;
- Reviewing licensing business processes and incorporating changes to improve efficiency without sacrificing public safety or information security by January 1, 2023; and
- Ensuring all licensing activities reflect the values of equity, diversity and inclusion.

Optimize organizational performance
We will do this by:

- Updating and developing standards and practice guidelines;
- Ensuring adequate IT infrastructure, improving our capacity to collect and manage data; and
- Reviewing and improving communication and business processes, including ensuring they reflect the values of equity, diversity and inclusion.

Implement a continuous governance improvement program
We will do this by:

- Improving orientation for councillors and PEO's executive leadership team;
- Ensuring committees and Council have the necessary evidence to support quality decision-making; and
- Establishing metrics for governance performance, which includes principles of equity, diversity and inclusion by spring 2023 and implementing an annual review.

Refresh PEO's vision to ensure all stakeholders see relevance and value in PEO
We will do this by:

- Facilitating meaningful dialogue with members and other stakeholders;
- Undertaking required research; and
- Developing a proposed vision for consultation.

PEO recently began work on charting a path forward to develop a new vision statement, which is one of the four strategic priorities outlined in the regulator’s 2023–2025 Strategic Plan. This work, under the guidance of PEO Council—with President Roydon Fraser, PhD, P.Eng., FEC, supporting the working group—will see through the development of a vision statement that describes what PEO aspires to achieve in the decades to come and aligns stakeholders around a common purpose and direction.

The first step on this path was taken in midsummer, when a call-to-action for advisory group participation went out to PEO licence holders. More than 200 licence holders submitted their intention to participate in the 2050 Visioning Process, and, since then, have all been invited to participate as advisory group members.

In late August, an external project team was onboarded to guide the facilitation and logistical support of the groups’ efforts and ongoing stakeholder engagement. This working group, comprised of representatives from roughly a dozen key stakeholder groups drawn from PEO volunteers, Engineers Canada, the Ontario Society of Professional Engineers and engineering faculties and students, to name a few, are ultimately responsible for proposing the

vision statement to Council for consideration. The working group will be supported by the advisory groups and will guide, provide feedback and evaluate the results.

As the working and advisory groups prepare to meet and embark on an extensive period of stakeholder engagement and consultation, this period of work will endeavour to keep participation and transparency top of mind while remaining grounded in the principles of user-based design. The breadth of experience and perspectives offered by group members and stakeholders will feed into an iterative process of analysis, design and evaluation that is planned to conclude this winter.

The 2050 visioning process has already been set up for success with the high number of participants in the process, and for that, the team at PEO and the Office of the President would like to thank all those willing to invest their time and energy to the future of the profession.

AN ENGINEER WEIGHS IN ON CPD

Practising engineer Darrin Wiegard, P.Eng., shares his thoughts on completing CPD activities during the mandatory PEAK program's inaugural year.

By Marika Bigongiari

PEO's mandatory continuing professional development (CPD) program, PEAK, is nearing the end of its first year, and some licence holders have already completed the program elements. One such individual is Darrin Wiegard, P.Eng., an operations engineer at Nahanni Steel in Brampton, ON. A hands-on person who enjoys being an engineer, Wiegard has successfully completed his three assigned elements: the Practice Evaluation, Professional Practice Module and—because he's a practising P.Eng.—Continuing Professional Development Report to report his assigned CPD hours.

Since its launch as a mandatory program on January 1, 2023, PEAK requires that professional engineers and limited licence holders complete the program every calendar year to maintain their licence. Individuals completing PEAK are assigned program elements at the start of each year based on their practice status and licence status combination. For Wiegard, the PEAK process was straightforward. "PEAK is cool if you take it seriously," says Wiegard. "It's not difficult—and it will push me to learn something new."

"DID YOU GO SOMEWHERE TODAY AND LEARN SOMETHING FOR TWO HOURS? GET THOSE TWO HOURS DOWN IN YOUR CALENDAR FOR WHAT YOU PICKED UP THAT DAY."—DARRIN WIEGARD, P.ENG.

Wiegard, a mechanical engineer, readily embraced PEAK and its voluntary predecessor. This is unsurprising, given his background. After an early stint in the mining industry, he worked in the tool and die sector of automotive parts manufacturing. During this time, he also served as a Kaizen manager in charge of continuous improvement. At Nahanni Steel, whose core value system includes the commitment to constant improvement across the entire organization, the leadership is motivated to enhance their systems through innovation, train their people and invest in their capabilities.

Consequently, Wiegard understands the importance of enhancing skills in the context of professional growth. "Once you understand the program, it's easy," says Wiegard. He estimates spending about a half hour going



Darrin Wiegard, P.Eng., an operations engineer at Nahanni Steel in Brampton, ON, performs stamping tool process improvements.

through PEAK's main elements. "Watch the quick video. Figure out how many hours you must do—at most, you've got 30 hours," explains Wiegard, who points out that's just 2.5 hours per month. He says the CPD activities are nothing to fear: "If you consider all the opportunities that exist to make someone smarter or gain knowledge yourself, you'd be amazed at how quickly that comes."

COMPLETING CPD ACTIVITIES

Notably, the admissible portion of CPD activity hours should be reported on a one-to-one basis, meaning that the actual time spent on an admissible CPD activity is reported. Even though Wiegard was assigned only 12 hours of CPD for the year, he guesses he'd have little difficulty accumulating PEAK's maximum allotment of 30 hours if needed—in fact, he'd easily exceed it. "There are so many activities that qualify as PEAK that I do on a regular basis," says Wiegard, whose most significant challenge was getting into the habit of documenting the things he does each day.

But it's a practice he highly recommends because engineers learn constantly but aren't necessarily mindful of it. "Get in the habit of putting everything in your calendar. And once you get that down, then it's a piece of cake," advises Wiegard. "Did you go somewhere today and learn something for two hours? Get those two hours down in your calendar for what you picked up that day."

The PEAK program is designed to be practicable, with a variety of qualifying activities. These include studying and reading; attending seminars and webinars; passing technical courses; delivering engineering lectures, presentations or publications; developing engineering guidelines; or participating in technical mentoring. The latter is Wiegard's forte. A champion of the co-op system—Nahanni currently hosts six co-op students from the University of Waterloo and McMaster University—Wiegard also taught college tool and die design, jig and fixture and metal forming. He is heavily involved in working with co-op students and sharing his knowledge; it's something he's passionate about. "I teach industry," he declares.

It is possible to accrue PEAK activities during work hours if they aren't considered professional practice work. Wiegard has identified numerous opportunities—in fact, he has embraced the process. "Did I make somebody smarter today, or am I smarter today? That's how I define PEAK," says Wiegard. "Transfer of knowledge."

He looks for opportunities in his day-to-day activities, whether it's going to a course, seminar or trade show. "Maybe I find a trade

booth and have a conversation with somebody, and I've learned something I didn't know before. Okay, I'm smarter," says Wiegard. "That's PEAK."

But often, Wiegard finds the opportunity on the steel plant floor. "If I'm doing an automotive stamping process, that's what I do every day. That's not PEAK," observes Wiegard. "But if it's something new to me and it's not part of my regular day-to-day duties—that's PEAK."

PROTECTING THE PUBLIC

Ultimately, PEAK aims to support PEO's public-interest mandate by helping to ensure licence holders practise competently and ethically. By participating in the program, Wiegard agrees that licence holders demonstrate their commitment to continually improving their engineering practice and support PEO's mandate. "If you take it seriously, PEAK will push you to attend those shows or seminars, to read a book or grab that co-op student and sit down and teach them something," he observes. "If PEAK pushes me to attend an event, and I grab one little piece of information about requirements on standards or government, for example, that's huge."

Even the simple process of documenting CPD activities may spark curiosity and inquiry, leading to better understanding. To his fellow engineers, Wiegard's advice is simple: "Take it seriously. We educate ourselves to figure out the right way to do stuff," he says. "These are cars I'm dealing with—it's good when the wheels stay on." **e**

PEAK DUE DATES

Practice Evaluation:
January 31

Professional Practice Module:
January 31

Continuing Professional
Development Report:
December 31

CPD ADMISSABLE CRITERIA

A CPD activity will be admissible for the PEAK program if the learning content covered by the activity helps the licence holder reduce their professional practice risks. A CPD activity is acceptable if it addresses knowledge of the responsibilities of professional engineers, understanding of pertinent codes and standards and knowledge of best practices in acts of professional engineering (all of which must be relevant to their practice areas).

Specifically, the CPD activity must meet these criteria:

- Help the licence holder maintain (or enhance) their competence to practise professional engineering;
- Have engineering learning content that is directly related to their engineering practice area(s);
- Have technical or regulatory knowledge about acts of professional engineering; and
- Not be their professional practice hours or their acts of professional engineering.

The PEAK program accepts all learning formats because PEO understands that individuals learn in different ways and have unique personal circumstances. This means that even though an individual must choose admissible CPD activities, they may participate in activities in their preferred learning format. These include admissible activities that are free or paid, self-paced or instructor-led sessions, delivered virtually or in person or in a hybrid manner, as well as held locally or overseas.

More information about the PEAK program is available on the PEAK website, including PEAK FAQs and portal login FAQs and guidance.

COUNCIL ELECTIONS: WHAT'S NEW FOR 2024

PEO is implementing several policy changes to increase the transparency and fairness of Council elections.

By Adam Sidsworth

In a move to increase the transparency and fairness of PEO Council elections, Council endorsed key reforms recommended by the Governance and Nominating Committee (GNC) at its June meeting. The changes are effective for PEO's 2024 elections cycle, which begins this month.

The changes include substantive updates to key PEO elections policies. Specifically:

The Nomination and Voting Procedures, which was renamed from the Voting Procedures to better incorporate both the nomination and voting procedures, has had key changes. Notably:

- Licence holders can now opt for telephone communication in addition to electronic communication;
- The chief elections officer can consider exceptional circumstances or undue hardship in relation to the deadline for nomination forms;
- PEO's mandatory compliance training for volunteers, which was approved by Council in 2020, is now mandatory for candidates who are successfully elected to Council; and
- All candidates must complete the "Boards Basics" orientation by December 31, 2023.

The Election Publicity Procedures have been changed. Among other things:

- The chief elections officer can now review all candidates' election materials to be published in various PEO media, including *Engineering Dimensions*, to determine if the materials are compliant with PEO's electoral procedures and any applicable legal requirements. Furthermore, there is a process for the chief elections officer, in consultation with PEO's chief legal officer, to reject the material; and
- Individual PEO councillors' endorsement of candidates is no longer restricted, as it is difficult to enforce and could complicate the election process. However, PEO's chapters are still restricted from endorsing or not endorsing candidates.

The Nomination Form has been updated to include:

- Nominees must declare that they have read the Code of Conduct for Councillors. This replaces the former requirement that nominees read and understand the first two sections of the *Council Manual*, which was a more cumbersome requirement;
- The word "volunteer" has been added to the Nomination Form, and the phrase "for the volunteer position of" has been added to the Nomination

Acceptance form to clarify that all Council positions are voluntary; and

- The line requiring candidates to accept the results of the election as verified by the returning officers has been removed.

"THE GNC WAS TASKED WITH LOOKING AT HOW TO ENHANCE PUBLIC CONFIDENCE IN THE ELECTIONS."

—SHEETAL RAWAL, JD

PEO'S CONTINUOUS GOVERNANCE IMPROVEMENT

The impetus to update the 2024 elections process and materials lays in PEO's 2023–2025 Strategic Plan, which includes a goal to "implement a continuous governance improvement plan." As part of this goal, the GNC was tasked with reviewing the elections process and providing recommendations for change.

The GNC, with the expertise of staff, subsequently explored PEO's electoral obligations under the *Professional Engineers Act* and its associated regulations and bylaws, as well as PEO's commitments under its Anti-Racism and Equity Code. The GNC used as a guiding template Elections Canada's Electoral Integrity Framework, which conceptualizes electoral integrity. Previous recommendations from the now-stood-down Succession Planning Task Force, which drew from the report of an external consultant, also informed some of the recommendations.

"The GNC was tasked with looking at how to enhance public confidence in the elections, so the GNC looked at the elections process, from nominations all the way to the voting," says Sheetal Rawal, JD, research and policy analyst, special projects at PEO. "We used Elections Canada's Electoral Integrity Framework. It is an approach that uses six principles of integrity in elections: accessibility, transparency, reliability, security, independence and fairness."

At its January and February 2023 meetings, the GNC devised 11 recommendations, which were the source of many of the changes that were implemented for the 2024 elections cycle.



The 11 recommendations, presented to Council at its February meeting, include:

1. Survey licence holders to gain insight into their perceptions about voting, running for election and other elections-related issues;
2. Implement a board basics program for prospective candidates to complete in order for their nomination to be valid;
3. Develop narrow eligibility criteria for prospective candidates;
4. Explore how to ensure candidates have relevant skills and attributes that meet Council's requirements;
5. Clarify the role of the chief elections officer, including in relation to candidate material;
6. Gather information and report back what measures are in place to ensure PEO elections are secure;
7. Conduct an environmental scan of other regulators to see how they deal with violation, sanction and disqualification during an election, with a view to address a policy gap;
8. Review existing communication materials and develop an elections communications strategy with a view to electoral integrity;
9. Conduct a global review of election process-related documents to ensure predictability, consistency and reliability;
10. Review the Central Election and Search Committee, Regional Election and Search Committee and GNC so that roles and responsibilities are clarified and gaps, inconsistencies, areas of concern and possible reforms are identified; and
11. Research what currently guides staff, councillor and volunteer actions during elections and develop guidelines regarding principled and ethical conduct during elections.

The 2024 elections cycle begins this month, with the nominations scheduled to run from October 16 to November 24. Voting commences on January 12, 2024, and closes on February 16, 2024. Candidates who are successfully elected to Council will begin their term at PEO's 2024 Annual General Meeting, which will be held in the spring.

Find the 2024 Nomination and Voting Procedures and Elections Publicity Procedures on page 20 of this issue. [e](#)



Professional Engineers
Ontario

2024 COUNCIL ELECTIONS CALL FOR CANDIDATES

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

1. Any licence holder may be nominated for election to Council as president-elect, vice president or councillor-at-large, by at least 15 other licence holders. The nomination must include at least one licence holder resident in each region. [Regulation 941/90, s. 14(1)]
 - (a) The position of president-elect is for a one-year term, after which the incumbent will serve a one-year term as president and a one-year term as past president.
 - (b) The position of vice president is for a one-year term.
 - (c) The councillor-at-large position is for a two-year term. One councillor-at-large is to be elected in 2024.
2. Any licence holder residing in a region may be nominated for election to Council as a regional councillor for that region by at least 15 other licence holders who reside in the region. [Regulation 941/90, s. 14(2)]
 - (a) The position of regional councillor is for a two-year term.

A licence holder nominated for election to Council must complete a nomination acceptance form in which they declare they are a Canadian citizen or have the status of a permanent resident of Canada and are a resident in Ontario [section 3(3) of the *Professional Engineers Act*] and that they consent to the nomination [Regulation 941/90, s. 15]. Nomination petitions for collection of nominators' signatures and nomination acceptance forms may be obtained from the PEO website at www.peo.on.ca or the chief elections officer via email at elections@peo.on.ca, or by phone at 416-224-1100; 1-800-339-3716.

Completed nomination petitions and nomination acceptance forms are to be sent only electronically and only to the chief elections officer at elections@peo.on.ca, by 4 p.m. Eastern Time, November 24, 2023. No personal delivery of forms will be accepted. For further information on becoming a candidate, please refer to the 2024 Council Elections Guide posted on PEO's website.

2024 NOMINATION AND VOTING PROCEDURES

The 2024 Voting and Election Publicity Procedures were approved by the Council of PEO on June 23, 2023.

The Election Publicity Procedures form part of these Nomination and Voting Procedures. *Candidates and prospective candidates are responsible for familiarizing themselves with these procedures. Failure to follow these rules or procedures could result in a nomination being considered invalid.*

Candidates and prospective candidates¹ are urged to submit nominations and election material well in advance of published deadlines so that any irregularities may be corrected before the established deadlines. Nominees' names are made available on PEO's website as received; all other election material is considered confidential until published by PEO.

1. The schedule for the elections to the 2024–2025 Council is as follows:

Date nominations open	October 16, 2023
Date nominations close	4 p.m., November 24, 2023
Date PEO's licence holder roster will be closed for the purposes of licence holders eligible to automatically receive election material ²	January 5, 2024
Date a list of candidates and voting instructions will be sent to licence holders	no later than January 12, 2024
Date voting will commence	on the date that the voting packages are sent to licence holders, no later than January 12, 2024
Date voting closes	4 p.m., February 16, 2024

All times noted in these procedures are Eastern Time.

2. Candidates' names will be listed in alphabetical sequence by position on the list of candidates sent to licence holders and on PEO's website. However, the order of their names will be randomized when voters sign into the voting site to vote.
3. A person may be nominated for only one position.

¹ A "prospective candidate" is someone seeking nomination and a "candidate" is someone whose nomination has been validated.

² Licence holders licensed after this date may call in and request that election information be provided via telephone or, upon prior written consent by the licence holder for use of their email address, via email.

4. A nomination, once withdrawn, may not be re-instated.
5. Nomination papers are to be submitted only by email (elections@peo.on.ca) for tracking purposes. Forms will not be accepted by any other format (e.g. personal delivery, courier, fax). If you have a need for accommodation because of a disability that limits your ability to access electronic communications tools, please contact us via email: elections@peo.on.ca or by telephone: 416-224-1100 or toll-free at 1-800-339-3716 between the hours of 8:30 a.m. and 4:30 p.m.
6. Only nomination acceptance and nomination petition forms completed in all respects, without amendment in any way whatsoever, will be accepted.
7. Signatures on nomination forms may be hand-signed or electronic.
8. Signatures on nomination petition forms do not serve as confirmation that a licence holder is formally endorsing a candidate or prospective candidate.
9. In the event a candidate or prospective candidate changes their mind on a position and decides to run for a different position after submitting nomination forms, a newly completed nomination petition form, in addition to a new nomination acceptance form, will be required to be submitted by the deadline for nominations.
10. Prospective candidates should allow sufficient time for their emails to go through the system to ensure that the completed papers are, in fact, received by the Chief Elections Officer by 4 p.m. on November 24, 2023. In the event of a dispute as to when the forms were sent vs received, a prospective candidate can provide the Chief Elections Officer with a copy of their email to PEO that would indicate the time the nomination forms were sent from their computer. Material must be received by the deadline unless there are exceptional circumstances which warrant an extension. The Chief Elections Officer should consider on a case-by-case basis whether undue hardship or exceptional circumstances exist and how they should be addressed.
11. A candidate must declare in the Nomination Acceptance Form that they will complete the PEO mandatory compliance training for volunteers, if elected. This compliance training is free and online. This training helps ensure PEO compliance with the *Accessibility for Ontarians with Disabilities Act* and the *Workplace Violence and Harassment* requirements of the *Occupational Health and Safety Act*. It also minimizes the risk of interruption to Council's work by ensuring those elected for office have completed the requisite training. Those who have already completed PEO's mandatory compliance training for volunteers in previous roles will be considered to have completed the training and will not be required to do them again.
12. A candidate must have completed PEO's "Board Basics" orientation by December 31, 2023. This orientation is free and online. Failure to complete this orientation will result in a notation on the candidates list sent to licence holders and the PEO website indicating that the candidate has failed to comply with this requirement. The orientation must be completed by the deadline unless there are exceptional circumstances which warrant an extension. The Chief Elections Officer should consider on a case-by-case basis whether undue hardship or exceptional circumstances exist and how they should be addressed.
13. Council has appointed a Central Election and Search Committee to:
 - Encourage licence holders to seek nomination for election to the Council as President-Elect, Vice President or a Councillor-at-Large;
 - Assist the Chief Elections Officer as may be required;
 - Receive and respond to complaints regarding the procedures for nominating, electing and voting for licence holders to the Council; and
 - Conduct an annual review of the elections process and report to the June 2024 Council meeting.
14. Candidates will be advised when a member of the Central Election and Search Committee has declared a conflict of interest should an issue arise that requires the consideration of the committee.
15. Council has appointed a Regional Election and Search Committee for each region to encourage licence holders residing in each region to seek nomination for election to the Council as a Regional Councillor.
16. Council has appointed an independent Chief Elections Officer to oversee the election process and to ensure that nomination, election, and voting are conducted in accordance with the procedures approved by Council.
17. The Chief Elections Officer will be available to answer questions and complaints regarding the procedures for nominating, electing, and voting for licence holders to the Council. Any such complaints or matters that the Chief Elections Officer cannot resolve will be forwarded by the Chief Elections Officer to the Central Election and Search Committee for final resolution. Staff is explicitly prohibited from handling and resolving complaints and questions, other than for administrative purposes (e.g. forwarding a received complaint or question to the Chief Elections Officer).
18. Voting will be by electronic means only (internet and telephone). Voting by electronic means will be open at the same time the electronic election packages are sent out.

19. An independent agency has been designated by Council to receive, control, process and report on all cast ballots. This “Official Elections Agent” will be identified to the licence holders with the voting material.
20. If a candidate withdraws their nomination for election to PEO Council prior to the preparation of the voting site, the Chief Elections Officer shall not place the candidate’s name on the voting site of the Official Elections Agent or on the list of candidates sent to licence holders and shall communicate to licence holders that the candidate has withdrawn from the election. If the candidate withdraws from the election after the electronic voting site has been prepared, the Chief Elections Officer will instruct the Official Elections Agent to adjust the voting site to reflect the candidate’s withdrawal.
21. All voting instructions, a list of candidates and their election publicity material will be sent to licence holders by the Official Elections Agent. All voters will be provided with detailed voting instructions on how to vote electronically. Control numbers or other access control systems will be sent to licence holders by email after the election package has been sent out. The Official Elections Agent will send out an eblast with the control numbers (PINs) every Monday during the election period.
22. Election material sent to licence holders electronically will contain information related to the All Candidates Meetings.
23. If the Official Elections Agent is notified that an elector has not received a complete election information package, the Official Elections Agent shall verify the identity of the elector and may either provide a complete duplicate election information package to the elector, which is to be marked “duplicate,” by email or provide the voter’s unique control number to the voter and offer assistance via telephone. In order to receive such information via email, the elector must provide prior written consent to the use of their email address for this purpose.
24. Elections staff shall respond to any requests for new packages as usual—i.e., if the licence holder advises that they have moved and have not received a package, the licence holder is to be directed to the appropriate section on the PEO website where the licence holder may update their information with Document Management Centre (DMC).
25. DMC staff shall advise elections staff when the licence holder information has been updated; only then shall the elections staff request the Official Elections Agent to issue a replacement package with the same control number.
26. Verification of eligibility, validity or entitlement of all votes received will be required by the Official Elections Agent. Verification by the Official Elections Agent will be by unique control number to be provided to voters with detailed instructions on how to vote by internet and by telephone.
27. Voters need not vote in each category to make the vote valid.
28. PEO will post total votes cast in the election on the PEO website on each Friday of the voting period and will post final vote totals by candidate after voting has closed. No other information related to vote totals will be made available.
29. The Official Elections Agent shall not disclose individual voter preferences.
30. The Official Elections Agent shall keep a running total of the electronic ballot count and shall report the unofficial results to the Chief Elections Officer, who will provide the candidates with the unofficial results as soon as practically possible.
31. There shall be an automatic recount of the ballots for a given candidate category for election to Council or bylaw confirmation where the vote total on any candidate category for election to Council between the candidate receiving the highest number of votes cast and the candidate receiving the next highest number of votes cast is 25 votes or less for that candidate category or where the votes cast between confirming the bylaw and rejecting the bylaw is 25 votes or less.
32. Certification of all data will be done by the Official Elections Agent.
33. On or before the close of nominations on November 24, 2023, the President will appoint three licence holders or Councillors, who are not running in the election, as returning officers to:
 - Approve the final count of ballots; and
 - Make any investigation and inquiry as they consider necessary or desirable for the purpose of ensuring the integrity of the counting of the vote and report the results of the vote to the Registrar not later than March 8, 2024.
34. Returning officers shall receive a per diem of \$250, plus reasonable expenses, to exercise the duties outlined above.
35. Reporting of the final vote counts, including ballots cast for candidates that may have withdrawn their candidacy after the opening of voting to PEO, will be done by the returning officers to the Registrar, who will advise the candidates and Council in writing at the earliest opportunity.
36. Upon the direction of the Council following receipt of the election results, the Official Elections Agent will be instructed to remove the electronic voting sites from its records.

- 37. In the event a chapter holds an All Candidates Meeting, the chapter must invite to the meeting all candidates for whom voters in that region are eligible to vote.
- 38. Candidates for PEO Council may submit expense claims. The travel allowance to enable candidates to travel to chapter events during the period from the close of nominations to the close of voting will be based on the distance between chapters and the number of chapters in each region. Such travel expenses are reimbursed only in accordance with PEO’s expense policy.

- 39. These procedures may only be amended if approved by Council.
- 40. All questions from, and replies to, candidates are to be addressed to the Chief Elections Officer:

By email: elections@peo.on.ca

2024 ELECTION PUBLICITY PROCEDURES

IMPORTANT DATES TO REMEMBER

Deadline for receipt of publicity materials for publication in <i>Engineering Dimensions</i> and on the PEO website, including URLs to candidates’ own websites	4 p.m., December 8, 2023
Deadline for submission of candidate material to eblast to licence holders	1. January 8, 2024—1st eblast 2. January 22, 2024—2nd eblast 3. February 5, 2024—3rd eblast
Dates of eblasts to licence holders	1. January 15, 2024 2. January 29, 2024 3. February 12, 2024
Date of posting period	January 12, 2024 to February 12, 2024
Dates of voting period	January 12, 2024 to February 16, 2024
Dates of All Candidates Meetings	The week of January 1, 2024

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

- 1. These Election Publicity Procedures form part of the Nomination and Voting Procedures. *Candidates are responsible for familiarizing themselves with these procedures. Failure to follow these rules or procedures could result in a nomination being considered invalid.*
- 2. Names of nominated candidates will be published on PEO’s website as soon as their nomination is verified.
- 3. Names of all nominated candidates will be forwarded to members of Council, chapter chairs and committee chairs and published on PEO’s website by November 27, 2023.
- 4. Should a candidate wish to withdraw from the election, their name will remain on the website and the word “withdrawn” will appear beside their name on the PEO website.
- 5. Candidates will have complete control over the content of all their campaign material, subject to the procedures below, as well as to any applicable legal requirements. Candidate campaign material includes material for publication in *Engineering Dimensions*, additional material on PEO’s website, and material on their own websites.
- 6. Candidate material is readily available to the public and should be in keeping with the dignity of the profession at all times. Material may be published with a disclaimer.
- 7. In order to be published by PEO, candidate material must comply with these procedures and with any applicable legal requirements. Prior to candidate material being published by PEO, the Chief Elections Officer must assess the material to determine whether it is compliant. Where the Chief Elections Officer determines candidate material does not comply, the amendment process set out in section 8 should be followed. Where the Chief Elections Officer is of the opinion that candidate material may present a legal risk to PEO, the

Chief Elections Officer should seek legal advice from, or in consultation with, the Chief Legal Officer to assist in determining whether the material should be published. For example, if the Chief Elections Officer is concerned that a post may be libelous or in violation of PEO's human rights obligations, the Chief Elections Officer should consult with the Chief Legal Officer. Depending on the issue, or to avoid any perception of conflict or bias, the Chief Elections Officer may retain external legal counsel on the Chief Elections Officer's behalf. The Chief Elections Officer should provide the candidate an opportunity to amend the materials as set out in section 8. Following the advice of legal counsel, the Chief Elections Officer has the authority to reject the campaign material if the candidate does not amend the non-compliant portion. The Chief Elections Officer should provide reasons to the candidate for the rejection of their material.

8. The Chief Elections Officer is responsible for ensuring that all candidate material (whether for *Engineering Dimensions*, PEO's website or eblasts) complies with these procedures and any applicable legal requirements. Where it is deemed the material does not satisfy these procedures or any applicable legal requirements, the Chief Elections Officer will, within three full business days from receipt of the material by the Chief Elections Officer, notify the candidate, who is expected to be available during this period by telephone or email. The candidate will have a further two full business days to amend the material to bring it into compliance and advise the Chief Elections Officer of the amendment. Candidates are responsible for meeting this deadline. Should a candidate fail to re-submit material that is compliant within the two-business-day period, the candidate's material will be published with a notation explaining any necessary amendments by staff, or, following legal advice, the Chief Elections Officer may reject it. Where the Chief Elections Officer rejects material, they should provide reasons for the rejection to the candidate.
9. Candidate material may contain personal endorsements provided there is a clear disclaimer indicating that the endorsements are personal and do not reflect or represent the endorsement of PEO Council, a PEO chapter or committee or any organization with which an individual providing an endorsement is affiliated.
10. Candidate material for publication in *Engineering Dimensions* and any additional material they wish to publish on the website must be forwarded to the Chief Elections Officer via email at elections@peo.on.ca no later than 4 p.m. on December 8, 2023, and **must be in accordance with these procedures and Schedule A attached.**
11. Candidates have the option of using one of two templates to present their election material in *Engineering Dimensions*. Both templates are included in Schedule A of these procedures. The size of both templates is the equivalent of one-half page, including border, in *Engineering Dimensions*.
 - a. Option 1: Candidates using the blank template will have discretion over the presentation of their material, including but not limited to font style, size and effects. Candidates using the blank template will be permitted to include their portrait within the template.
 - b. Option 2: Candidates using the fillable template must provide responses to the questions provided in the allotted space. The presentation of the fillable template is fixed and no modifications will be permitted. Candidates using the fillable template must submit their portrait separately for insertion into the designated location by PEO staff.
12. Candidates shall not use the PEO logo in their election material.
13. Candidates may include links to PEO publications but *not* a URL link to a third party in their material on PEO's website. Links to PEO publications are not considered to be a third party. For clarity, besides links to PEO publications, the only URL link that may be included in a candidate's material on PEO's website is a URL link to the candidate's own website. URL links to other websites are not permitted.
14. Fundraising requests are not permitted in a candidate's material.
15. If campaign material is submitted by a candidate without identifying information, PEO staff are authorized to contact the candidate and ask if they wish to resubmit material.
16. Candidate publicity material will be published as a separate insert in the Winter 2024 issue of *Engineering Dimensions* and to PEO's website in January 2024. Links to candidate material on PEO's website will be included in any electronic mailing to eligible voters.
17. Candidate material will be considered confidential by PEO staff and access to it will be restricted to only the staff members required to arrange for publication until published on PEO's website. All candidates' material will be published to PEO's website at the same time. This procedure does not apply to candidates, who may publish their own candidate material prior to its publication by PEO and after.
18. Candidates may submit updates to their material on PEO's website once during the posting period. Any amendments to a candidate's name/designations are to be considered part of the one-time update permitted to their material during the posting period.
19. Candidates may post more comprehensive material on their own websites, which will be linked from PEO's website during the posting period. Candidates may include active links to their social media accounts (Facebook, Twitter, LinkedIn, etc.) in material appearing in *Engineering Dimensions*, published on PEO's election site (i.e. the 1000-word additional information

candidates may submit), or included in an eblast of candidate material. Active links to social media accounts other than the candidate's is not permitted.

20. PEO will provide three group email distributions to licence holders of candidate publicity material beyond the material published in *Engineering Dimensions*. Material to be included in an eblast must be submitted to the Chief Elections Officer at elections@peo.on.ca in accordance with Schedule A. In the event of a dispute as to when the material was sent vs received, the material will be accepted only if a candidate can provide the Chief Elections Officer with a copy of their email to PEO sent from their computer indicating a sent time before the deadline.
21. All material for the eblast messages must be submitted in a Word or Word compatible document only and must not be included as part of the message in the transmission email. Candidates should support their submission with a PDF or scan that shows what the final version of the message should look like. Where the email message is received in a font size or style that is different from the specifications, but otherwise meets all the requirements, the Chief Elections Officer may authorize staff to change only the size and font of the material so it conforms to specifications. Unless expressly authorized by the Chief Elections Officer to change font style and size, staff are prohibited from amending material in any way except with the written permission of the candidate.
22. Candidates are responsible for responding to replies or questions generated by their email message.
23. PEO will provide candidates the opportunity to participate in All Candidates Meetings, which will be held at PEO offices during the week of January 1, 2024. Candidates are encouraged to participate. The All Candidates Meetings will be video recorded for posting on PEO's website. On the day of the first All Candidates Meeting, an eblast will be sent to licence holders announcing that these video recordings will be posted on the PEO website within two business days.
24. Candidate materials from previous elections will remain on PEO's database as part of the record of the election.
25. Caution is to be exercised in determining the content of issues of PEO publications published during the voting period, including chapter newsletters. Editors are to ensure that no candidate is given additional publicity or opportunities to express viewpoints in issues of PEO publications distributed during the voting period from January 12, 2024 until the close of voting on February 16, 2024, beyond their candidate material published in the Winter issue of *Engineering Dimensions*, and on the PEO website. This includes photos (with or without captions), references to, or quotes or commentary by, candidates in articles, letters to the editor and opinion pieces. PEO's communications vehicles should be, and should be seen to be, non-partisan. The above does not prevent a PEO publication from including photos of candidates taken during normal PEO activities (e.g. licensing ceremonies, school activities, GLP events, etc.) provided there is no expression of viewpoints. For greater clarity, no election-specific or election-related articles, including Letters to the Editor and President's Message, are to be included in *Engineering Dimensions* during the voting period. *Engineering Dimensions* or other PEO publications may contain articles on why voting is important.
26. Chapters may not endorse candidates, or expressly not endorse candidates, in print, on their websites or through their list servers or at their meetings or activities during the voting period. Where published material does not comply with these procedures, the Chief Elections Officer will cause the offending material to be removed if agreement cannot be reached with the chapter within the time available.
27. Candidates may attend chapter annual general meetings and network during the informal portion of the meeting. Candidates are permitted to attend chapter functions in their current official capacity but are prohibited from campaigning while operating in their official capacity.
28. The Central Election and Search Committee is authorized to interpret the voting and election publicity guidelines and procedures and to rule on candidates' questions and concerns relating to them. Any such complaints or matters that the Chief Elections Officer cannot resolve will be forwarded to the Central Election and Search Committee for final resolution.

SCHEDULE A: 2024 ELECTION PUBLICITY PROCEDURES

SPECIFICATIONS FOR CANDIDATE MATERIALS

FORMAT FOR CANDIDATE STATEMENTS IN *ENGINEERING DIMENSIONS*

All submissions will be published with a border. If submissions are received without a border, one will be added as shown on the templates. If submissions do not fit within the chosen template, they will be mechanically reduced to fit.

Option 1: Blank template

Candidates using the blank template to present their material for publication in *Engineering Dimensions* must ensure the content fits in the bordered template provided at the end of these specifications. The template dimensions are 6.531 inches wide and 4.125 inches in height

All material for publication must be submitted as a PDF document, with images in place for reference, and in Word format only, showing where images are to be placed. No other formats will be accepted.

Portraits must also be submitted as specified in the next section.

The publications staff needs both a PDF file and Word file of candidate material so they will know how candidates intend their material to look. If there are no difficulties with the material, the PDF file will be used. The Word file is required in case something isn't correct with the submission (just a bit off on measurement, for example), as it will enable publications staff to fix the problem, if possible. A hard and/or digital copy of a candidate's portrait is required for the same reason and for use on the PEO election website.

Option 2: Fillable template

Candidates using the fillable template must provide responses to the questions provided in the allotted space. The completed template must be submitted as a PDF document.

Portraits must be submitted separately, as specified in the portraits section below and will be added to the template by PEO staff.

The presentation of the fillable template is fixed and no modifications will be permitted.

The profile template will be available on PEO's elections website, www.peovote.ca

A hard and/or digital copy of a candidate's portrait is also required for use on the PEO Elections website.

PORTRAITS/PHOTOGRAPHS

Photographs must be at least 5" x 7" in size if submitted. Photographs must be at least 5" x 7" in size if submitted in hard copy form so that they are suitable for scanning ("snapshots" or passport photographs are not suitable).

Only pictures taken in the last five years will be accepted.

If submitted in digital form, photographs must be JPEG-format files of at least 300 KB but no more than 2MB.

Candidates can submit a digital photo at the specifications noted, or hard copy as noted, and preferably both. In case the digital file is corrupted or not saved at a sufficiently high resolution, publications staff can rescan the photo (hard copy) to ensure it prints correctly, as indicated on the PDF.

PEO WEBSITE (CANDIDATES' ADDITIONAL INFORMATION)

Candidates may publish additional information on PEO's website by submitting a Word or Word-compatible file of no more than 1,000 words and no more than three non-animated graphics in JPEG or GIF format. Graphics may not contain embedded material.

Candidates may post additional material on their own websites. URLs for candidates' websites must be active by December 8, 2023.

Candidates may include links to PEO publications but not a URL link to a third party in their material that is to be posted on PEO's website. Links to PEO publications are not considered to be to a third party. For clarity, the only URL link that may be included in a candidate's material on PEO's website, besides links to PEO publications, is the URL to the candidate's own website. Candidates may include active links to their social media accounts (Facebook, Twitter, LinkedIn, etc.)

EBLAST MATERIAL

Candidates are permitted a maximum of 300 words for email messages. Messages are to be provided in 11 pt. Arial font; graphics are not permitted. For clarity, a "graphic" is an image that is either drawn or captured by a camera.

HELP

Candidates should contact the Chief Elections Officer (elections@peo.on.ca) if they have questions about requirements for publicity materials.

Option 1: Blank template

Option 2: Fillable template

	<p>Name:</p> <p>Employer and position:</p> <p>Degree(s), school(s) attended, year(s) of graduation:</p> <p>Employment history:</p> <p>Participation on PEO Council, committee/task forces, chapters:</p> <p>Other professional affiliations and community service:</p> <p>Years of registration in Ontario:</p>	<p>Candidate statement:</p>
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SUMMARY OF DECISION AND REASONS

On allegations of professional misconduct under the *Professional Engineers Act* (the “Act”) regarding the conduct of Emad H. Assaad, P. Eng. (the “Member” or “Assaad”), a member of the Association of Professional Engineers of Ontario (the “Association” or “PEO”) and 1885219 Ontario Inc. O/A ASPA Engineering and Welding Solutions (the “Holder” or “ASPA”), a holder of a Certificate of Authorization.

The Panel of the Discipline Committee heard this matter electronically via videoconference on May 15, 2023.

AGREED STATEMENT OF FACTS & DECISION ON MISCONDUCT

The Member, MBECO, and the Association entered into an Agreed Statement of Facts (“ASF”) dated February 8, 2023, the relevant parts of which (excluding schedules) are as follows:

1. At all material times, Assaad was a professional engineer licensed pursuant to the Act. Assaad holds a Bachelor of Science degree in civil engineering from Alexandria University.
2. At all material times, ASPA was the holder of a Certificate of Authorization #C100231140 issued by the Association of Professional Engineers of Ontario (“C of A”). Assaad was the individual identified who will take professional responsibility for engineering services provided under the C of A.
3. The Complainant, Heather Liddycoat, P.Eng. (“Liddycoat”), was, at all material times, a professional engineer licensed by the PEO who was employed by Witzel Dyce Engineering Inc. (“WDEI”) in connection with its role as the primary structural engineer for a child-care center addition to Saginaw Public School (the “Project”).
4. Assaad and ASPA were retained by Custom CAD Consulting Inc. (“CCCI”), a sub-sub-contractor on the Project, to provide the Open Web Steel Joist (“OWSJ”) design for the Project based on WDEI’s drawings. To perform that service, Assaad and ASPA used a computer program called RISA 3D.
5. On August 17, 2021, Assaad and ASPA issued OWSJ shop drawings which were signed and sealed by Assaad for CCCI (the “Initial OWSJ Shop Drawings”). Assaad and ASPA further created an unsigned joist calculation package dated August 25, 2021, using the RISA 3D program (“Initial OWSJ Calculations”). On review by WDEI and Liddycoat, both were rejected and required to be resubmitted with notes as follows:
 - a. The following errors, omissions and defects were required to be corrected:
 - i. the joists calculations and joist configuration were incorrect;
 - ii. the deflection and axial force diagrams were not in accordance with usual engineering practice in respect of OWSJ design;
 - iii. boundary conditions were not appropriate for the joist layout;
 - iv. the diagonal members on the joists were facing the wrong direction; and
 - v. the design documents were missing required information on several aspects, and specifically on: the joist spacing; the line loads being applied to the joists; loading information for uplift and snow pile up; bridging layout and details; and the boundary conditions, specifically whether they were fixed or roller at one end.
 - b. These defects suggested to WDEI and Liddycoat that Assaad and ASPA did not understand the concepts involved in OWSJ design.
 - c. They also suggested to WDEI and Liddycoat that Assaad and ASPA did not understand the proper use or population of the RISA 3D computer program in the manner required to generate a correct and appropriate OWSJ design.
 - d. WDEI and Liddycoat required the revised design and calculations “to be stamped by two engineers licensed in the province of Ontario”.
6. The Initial OWSJ Shop Drawings and Initial OWSJ Calculations did not comply with applicable standards and codes, and specifically did not comply with the requirements of the Ontario Building Code (“OBC”) and of CSA Standard S16-14, Design of Steel Structures, applicable to these OWSJ steel joist designs.
7. Assaad and ASPA reissued and resubmitted a revised set of shop drawings signed and sealed by Assaad dated

- September 9, 2021, and a series of 10 joist reports apparently outputted from the RISA 3D program, dated September 8 and 9, 2021 (together the “Revised OWSJ Design”).
8. The Revised OWSJ Design attempted to address the comments noted by WDEI and Liddycoat regarding boundary conditions and the direction of the diagonal members, but it did not otherwise address the noted comments or revise the OWSJ design parameters and RISA 3D models on which the Initial OWSJ Shop Drawings and Initial OWSJ Calculations were based. As a result, on review by WDEI and Liddycoat, the Revised OWSJ Design drawings were found to have many of the same errors, omissions, and deficiencies in the OWSJ design to those previously noted and described in paragraphs 5-6, above. Those same errors, omissions and deficiencies were also present in subsequent design drawings, calculations and RISA 3D outputs sent by Assaad and ASPA to WDEI and Liddycoat between September 10 and September 13, 2021.
 9. On September 14, 2021, Liddycoat advised Assaad by email that she intended to make a complaint to PEO. The complaint was filed the next day.
 10. On or about September 15, 2021, Assaad and ASPA engaged Brian Waddell, P.Eng. (“Waddell”) as a second professional engineer to assist in the completion of the OWSJ design and to satisfy the second seal requirement referred to above. The final shop drawings were signed and sealed by both Assaad and Waddell. They, together with the final joist calculations, were reviewed and accepted by Liddycoat on or about October 12th [2021].
 11. PEO acknowledges that Assaad cooperated with all involved through the process referred to above, and that he attempted to correct the errors noted by WDEI and Liddycoat.
 12. PEO retained Nathan Proper, P.Eng., to review the actions and conduct of the Respondents. He prepared a report (the “Tacoma Report”) dated April 4, 2022, which concluded, among other things: that the Respondents failed to comply with the codes and standards applicable to the design of OWSJs; that the errors, omissions, and deficiencies identified in the Tacoma Report would not be expected of a reasonable and prudent practitioner; that the Respondents failed to meet the standard expected of a reasonable and prudent practitioner in the circumstances; and that there was a small potential safety impact as a result of the failure to comply with the standards and codes. Attached as Schedule “A” is a copy of the Tacoma Report.
 13. For the purposes of these proceedings, the Respondents accept as correct the findings, opinions and conclusions contained in the Tacoma Report. The Respondents admit that they failed to make reasonable provision for the safeguarding of the public, that they failed to make responsible provision for complying with applicable standards and codes, and that they failed to maintain the standards that a reasonable and prudent practitioner would maintain in the circumstances.
 14. The acts and omissions by Assaad and ASPA referred to in paragraphs 5-8, above, show a lack of awareness on their part of the requirements of the OBC and of CSA Standard S16-14 applicable to OWSJ designs, and a failure to make responsible provision for complying with that code, that standard, and other rules in relation to the work they undertook in the preparation of OWSJ drawings and calculations.
 15. While Assaad is and was qualified as a civil engineer, he had no special training or expertise in steel joist design, and he had had very little prior experience in the use of the RISA 3D program. Assaad was therefore not competent to undertake the OWSJ design for the Project.
 16. By reason of the aforesaid, the parties agree that Assaad and ASPA are guilty of professional misconduct under 72(2) R.R.O 1990, Reg. 941 (“Regulation 941”), as follows:
 - a. Professional misconduct as defined in section 72(2) (a) of Regulation 941, in being negligent in the preparation, revision and submission of the Initial OWSJ Shop Drawings and Initial OWSJ Calculations, the Revised OWSJ Design, and other OWSJ design documents provided to WDEI and Liddycoat between August 17 and September 13, 2021;
 - b. Professional misconduct as defined in section 72(2)(b) of Regulation 941, in failing to make reasonable provision for the safeguarding of the life, health and property of persons, including those who might subsequently use the child-care center addition to Saginaw Public School [in Cambridge, Ontario];

- c. Professional misconduct as defined in section 72(2) (d) of Regulation 941, in failing to make responsible provision for complying with the requirements of the OBC and of CSA Standard S16-14 applicable to OWSJ steel joist designs in relation to the Project; and
 - d. Professional misconduct within section 72(2)(j) of Regulation 941, in that the conduct of the Respondents was unprofessional.
17. Further, it is agreed that Assaad is guilty of professional misconduct as defined in section 72(2)(h) of Regulation 941, in that he undertook work for which he was not qualified in all the circumstances.

On behalf of himself and ASPA, the Member admitted the allegations set out in paragraphs 16(a) to 16(d) and 17 of the Agreed Statement of Facts. The Panel conducted a plea inquiry and was satisfied that the Member's admission was voluntary, informed, and unequivocal.

The Panel considered the Agreed Statement of Facts and found that the facts, as agreed, support findings of professional misconduct and, in particular, it found that the Member and ASPA committed acts of professional misconduct as set out in paragraphs 16(a) to 16(d) and 17 of the Agreed Statement of Facts, above.

JOINT SUBMISSION ON PENALTY & DECISION ON PENALTY

The parties filed a joint submission on penalty ("JSP") as follows:

- a. Pursuant to s. 28(4)(f) of the Act, Assaad and ASPA shall be reprimanded, and the fact of the reprimand shall be recorded on the Register permanently;
- b. Pursuant to s. 28(4)(b) of the Act, the Member's licence and the Holder's Certificate of Authorization shall be suspended for a period of one (1) month commencing on the date of pronouncement of the Discipline Committee's penalty decision;
- c. The findings and order of the Discipline Committee shall be published in summary form under ss. 28(4)(i) and 28(5) of the Act, together with the names of the Member and the Holder;
- d. Pursuant to s. 28(4)(d) and/or s. 28(4)(e) of the Act, it shall be a term, condition or restriction on Assaad's licence and ASPA's Certificate of Authorization that they shall be prohibited from providing structural engineering services, except that they shall be permitted to continue

- to carry out steel connections reviews, so long as such reviews do not involve Open Web Steel Joists;
- e. If Assaad demonstrates his competence in structural engineering by successfully passing the following examinations administered by PEO, namely,
 - i. 07-Str-A4 (Advanced Structural Analysis), and
 - ii. 07-St-A5(Advanced Structural Design),
 the term, condition or restriction set out in subparagraph d) above shall be lifted; and
- f. There shall be no order as to costs.

PENALTY ORDER

The Panel accepted the Joint Submission as to Penalty and Costs and made an order to give it effect without any change.

Reasons for Penalty

The Panel considered the Joint Submission on Penalty and Costs. It is a well-established principle of law that a disciplinary panel should not interfere with a joint submission on penalty except where the panel is of the view that to accept the joint submission would bring the administration of the disciplinary process into disrepute or otherwise be contrary to the public interest (see, e.g., *Bradley v. Ontario College of Teachers*, 2021 ONSC 2303.)

The Panel was satisfied that the penalty protects the public and serves the principles of general and specific deterrence, rehabilitation, and maintenance of the public's confidence in the profession.

The Panel accepted that the immediate restriction on the Member's licence and on ASPA's Certificate of Authorization appropriately protects the public by prohibiting him from providing structural engineering services. The Panel noted that the exception to this prohibition, which allows the Member to conduct steel connections reviews, was narrowly tailored and supported by a review of previous work submitted by the Member to PEO for that purpose, demonstrating that Assaad is competent in this area of engineering.

The Panel noted that the restriction shall remain in place until the Member successfully completes two examinations in structural engineering to demonstrate his current competence in this area. The Panel believed that this appropriately balances the need to protect the public while allowing the Member an opportunity to demonstrate rehabilitation should he wish to practise in this area in future.

Similarly, the Panel decided that the suspension, the reprimand, and the publication of its reasons in summary form with reference to names will serve the purpose of both general and specific deterrence, as well as help to uphold the public's

confidence in the regulation of the engineering profession. These measures demonstrate to the public and the profession that practising beyond the scope of one's competence will be taken seriously by PEO and result in significant consequences.

The Panel was reassured in its conclusions by the cooperation of the Member throughout the investigation, including his guilty plea and agreement to an agreed statement of facts and joint submission on penalty. This suggested to the Panel that the Member has demonstrated insight into the issues identified in his practice and has the ability to better recognize the limits of his competence in future. The Panel also noted that this was the Member's first appearance before the Discipline Committee, which was a further mitigating factor.

Finally, the Panel noted that the penalty ordered in this matter is in line with two previous decisions of the Discipline Committee that dealt with similar cases involving inadequate structural designs. The Panel was therefore of

the view that it falls within a reasonable range of penalties ordered in previous cases.

For all of the above reasons, the Panel accepted the Joint Submission as to Penalty and Costs. The Panel delivered the reprimand immediately following the conclusion of the hearing. During the reprimand, the Panel highlighted the importance of recognizing the limits of one's competence, of having an established quality assurance process to identify errors and omissions, and of remembering that while software is an important tool, it does not replace the need for an engineer's analytical skills.

On June 19, 2023, Glenn Richardson, P.Eng., signed the Decision and Reasons for the decision as Chair of the Discipline Panel and on behalf of the Members of the Discipline Panel: Jag Mohan, P.Eng. and Eric Bruce, J.D.

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 KAZI A. MAROUF, P.ENG., a member of the Association of Professional Engineers of Ontario.

This panel of the Discipline Committee (the "Panel") of the Association of Professional Engineers of Ontario (the "PEO") convened a hearing electronically via Zoom on March 30, 2023, to consider the conduct of Kazi A. Marouf ("Mr. Marouf") as described more particularly herein.

As Mr. Marouf was not present at the time specified for the commencement of the hearing in the Notice of Hearing and not represented, the Panel took a fifteen minute break before the start of the hearing to see if Mr. Marouf and/or a representative would arrive at the hearing. That did not occur, and the Panel commenced the hearing immediately following the fifteen minute break.

At the beginning of the hearing (i.e. following the fifteen minute break), counsel for the PEO provided an Affidavit of Service which showed that on February 19, 2023, Mr. Marouf was personally served with the Notice of Hearing for this matter and a copy of the Rules of Procedure of the Discipline Committee of the PEO. Counsel for the PEO also

provided an Affidavit of Service showing that on March 28, 2023, Mr. Marouf was served with a letter reiterating the hearing date and providing details regarding the electronic hearing. Based on the evidence, the Panel concluded that Mr. Marouf was given reasonable notice of the hearing pursuant to Sections 6 and 7 of the *Statutory Powers Procedure Act, R.S.O. 1990, c. S.22* and that the hearing could proceed in his absence.

THE ALLEGATIONS

The allegations against Mr. Marouf are stated in the Statement of Allegations dated October 18, 2022. The relevant parts of the Statement of Allegations, taken directly therefrom, are as follows:

It is alleged that Kazi Abdul Marouf, P. Eng. ("Marouf") is guilty of professional misconduct as defined in the *[Professional Engineers] Act* and Regulation 941 [of the Act], as follows:

1. At all material times, Marouf was a professional engineer licensed pursuant to the Act. Marouf holds a bachelor's degree in applied science from the University of Ottawa.
2. The Complainant, Tim Curtis ("Curtis"), was at all material times the President of Niagara-on-the-Lake Hydro ("NOTLH").
3. On May 11, 2017, Marouf was hired by NOTLH as its Vice President, Operations.
4. Between March 25, 2019 and August 20, 2020, Marouf engaged in a course of fraudulent activity against his employer, NOTLH, consisting of the fabrication, delivery and approval of a fraudulent quote for engineering services to NOTLH, a fake purchase order, and approval for payment by NOTLH of 17 invoices for fictitious engineering services and supplies totalling \$446,074.81, resulting in the theft by Marouf of that amount from his employer.
5. On September 14, 2020, Marouf was confronted by NOTLH. He admitted to the fraud, and his employment was terminated for cause on that date.
6. Marouf was arrested on January 12, 2021, and was charged the following day with the offence of fraud over \$5,000 contrary to s. 380(1)(a) of the Criminal Code (Canada). He pleaded guilty to that charge on September 7, 2021, and he was convicted of that offence.
7. Prior to the guilty plea and the sentencing, which took place on September 27, 2021, Marouf had made payments to NOTLH amounting to restitution of the entire amount misappropriated.
8. It is therefore alleged that Marouf is guilty of professional misconduct as defined in ss. 28(2)(a) of the Act, in being found guilty of an offence relevant to his suitability to practise.
9. It is further alleged that the conduct of Marouf described herein also amounted to professional misconduct under section 72(2)(j) of Regulation 941.

The Panel advised that because Mr. Marouf was not present, the Panel would proceed on the basis that he denied all of the allegations set out in the Statement of Allegations.

THE EVIDENCE

Counsel for the PEO called one witness, Mr. Tim Curtis, who was the complainant in this matter. At the time of the events in the Statement of Allegations, Mr. Curtis held the role of President of Niagara-on-the-Lake Hydro ("NOTLH"). Mr. Curtis still holds that role today.

Mr. Curtis testified that Mr. Marouf was the Vice President of Operations of NOTLH ("VP of Operations"). In that role, Mr. Marouf was involved in a number of major projects. Mr. Curtis testified that although he does not believe it is necessary for the VP of Operations to be a professional engineer, he does find it helpful for the VP of Operations to have this designation.

Mr. Curtis stated that Mr. Marouf committed the fraud at issue in this matter by creating fake invoices and presenting them to Mr. Curtis as work required to complete these major projects. In addition, Mr. Curtis testified that the fraud was discovered because HST was incorrectly calculated on one of the fraudulent invoices. As a result, an employee of NOTLH called the number on the invoice and it was discovered that the person on the answering machine recording was Mr. Marouf's son. At this time, Mr. Curtis contacted a lawyer and a forensic accountant. The forensic accountant confirmed that fraud occurred and that it was in the amount of \$446,074.81, as noted above. Mr. Marouf was confronted and signed a document admitting to the fraud. In the document signed by Mr. Marouf, he also consented to the termination of his employment at NOTLH, with cause. Mr. Curtis testified that the Board of Directors of NOTLH was kept apprised of the above and supported Mr. Curtis' actions.

Counsel for the PEO presented the Panel with court documents, including the court Information which was sworn by a Peace Officer on January 13, 2021 (the "Information"). The Information showed that Mr. Marouf was arrested on January 12, 2021, at which time he was charged with fraud over \$5000 contrary to Section 380(1)(a) of the Criminal Code of Canada ("Criminal Code"). Counsel for the PEO also presented the Panel with an "Adult Conditional Sentence Order" dated September 27, 2021 (the "Order"). The Order showed that Mr. Marouf was sentenced to a conditional sentence of two years less a day for fraud over \$5000, contrary to Section 380(1)(a) of the Criminal Code, which could be served in the community as long as Mr. Marouf obeyed the conditions in the Order.

The court documents included a Victim Impact Statement ("Statement") dated July 21, 2021, which Mr. Curtis submitted to the Attorney General, Criminal Law Division, Niagara North on behalf of NOTLH. In the Statement, as well as in his tes-

timony before the Panel, Mr. Curtis recounted the shock and sense of betrayal he felt by Mr. Marouf's fraudulent actions. He testified that Mr. Marouf repaid the amounts taken from NOTLH, which was a relief, but it also made him question why the fraud was committed in the first place. In the Statement, Mr. Curtis advised that NOTLH supported the criminal conviction of Mr. Marouf, with a guilty verdict. NOTLH also supported a conditional sentence with house arrest. NOTLH did not support a jail sentence since they did not believe Mr. Marouf was a threat to society.

The Statement also said that Mr. Curtis would be complaining to the PEO and seeking to have Mr. Marouf's professional engineering license revoked. Mr. Curtis did in fact complain to the PEO and did seek to have Mr. Marouf's professional engineering license revoked in the complaint dated November 18, 2021, which resulted in the hearing before this Panel.

The Panel found Mr. Curtis to be credible. His testimony appeared to be truthful and accurate and it was supported by the documents presented to the Panel by counsel for the PEO. In addition, Mr. Curtis seemed to have a clear memory of the events that occurred which bolstered the Panel's finding that Mr. Curtis was credible.

Counsel for PEO took the position that the allegations of fact in this matter were all proven through the testimony of Mr. Curtis and the court documents. Counsel for the PEO also stated that Mr. Marouf took advantage of his senior position at NOTLH and the trust that was placed in him. Furthermore, counsel for the PEO stated that Mr. Marouf's actions were a major betrayal of the principles that all engineers should follow and that his actions are related to his suitability to practice as a professional engineer.

DECISION AND REASONS FOR DECISION

The PEO bears the onus of proving the allegations in the Statement of Allegations in accordance with the applicable standard of proof. The applicable standard of proof applied by the Panel in this instance is a balance of probabilities. Having considered the evidence, the onus and the standard of proof, this Panel finds that Mr. Marouf committed acts of profes-

sional misconduct as alleged in the Statement of Allegations. In particular, the Panel finds that Mr. Marouf committed professional misconduct as defined in Section 28(2)(a) of the *Professional Engineers Act* (the "Act"), because he was found guilty of an offence relevant to his suitability to practise as a professional engineer. Section 28(2)(a) of the Act states:

- (2) A member of the Association or a holder of a certificate of authorization, a temporary licence, a provisional licence or a limited licence may be found guilty of professional misconduct by the Committee if,
- (a) the member or holder **has been found guilty of an offence relevant to suitability to practise, upon proof of such conviction;** or [emphasis added]

...

As noted above, the PEO submitted evidence which proved that Mr. Marouf has been found guilty of the offence of fraud over \$5000 contrary to Section 380(1)(a) the Criminal Code. The Panel believes that this offence is relevant to Mr. Marouf's suitability to practise as a professional engineer. This is because Mr. Marouf's conduct involved dishonesty and the abuse of a position of trust. The Panel finds that the public and other professional engineers would be shocked by Mr. Marouf's conduct.

The Panel also finds that Mr. Marouf committed professional misconduct as defined in Section 72(2)(j) of Regulation 941. Section 72(2)(j) of Regulation 941 states:

"professional misconduct" means,

...

- (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,** [emphasis added]

...

Counsel for the PEO argued that in this case Mr. Marouf's conduct was all three of the above – disgraceful, dishonourable and unprofessional. The Panel agrees with counsel for the PEO in this regard. The Panel believes that other professional engineers, as well as the public, would find Mr. Marouf's conduct shocking and contrary to the values that professional engineers should hold. The Panel also believes that Mr. Marouf's conduct involved serious dishonesty and moral failing. As such, the Panel finds that Mr. Marouf's actions rise to the level of disgraceful, dishonourable, and unprofessional conduct.

PENALTY

Having found that Mr. Marouf is guilty of professional misconduct as noted above, it is necessary to proceed to the penalty phase of this matter. The Panel has decided to proceed with an oral penalty hearing. Although Mr. Marouf is not entitled to further notice of the proceedings, the Panel's expectation is that Mr. Marouf will receive a copy of this Decision and

Reasons and have the opportunity to attend the penalty hearing if he chooses to do so.

The Panel requests that the PEO Tribunal Office canvass dates for a one day penalty hearing with the parties, the Panel members and ILC, with the view of scheduling the penalty hearing as soon as possible.

Alisa Chaplick, LL.B., LL.M., signed this Decision and Reasons for the decision as Chair of this Discipline Panel and on behalf of the members of the Discipline Panel: Tommy Sin, P.Eng., and Rishi Kumar, 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 KAZI A. MAROUF, P.ENG., a member of the Association of Professional Engineers of Ontario.

This panel of the Discipline Committee (the “Panel”) of the Association of Professional Engineers of Ontario (the “PEO” or the “Association”) convened a hearing electronically via Zoom on June 27, 2023, for the penalty phase of a matter regarding Kazi A. Marouf, P.Eng. (“Mr. Marouf”) as described more particularly herein.

In particular, this is the Decision and Reasons on Penalty, rendered further to this Panel’s Decision and Reasons on the merits of this matter issued on April 19, 2023 (“Decision on the Merits”). In its Decision on the Merits, this Panel found Mr. Marouf guilty of professional misconduct as defined in Section 28(2)(a) of the *Professional Engineers Act* (the “Act”) and Section 72(2)(j) of Regulation 941 of the Act, as described more particularly below. In the Decision on the Merits, this Panel also directed that a further hearing date be set to determine the issue of penalty. As noted above, on June 27, 2023, this Panel held the penalty phase of the hearing. What follows is the Decision and Reasons on penalty.

NOTICE TO MR. MAROUF

As Mr. Marouf was not present at the time specified for the commencement of the penalty hearing in the Notice of Hearing described below, and not represented, the Panel took a fifteen-minute break before the start of the hearing to see if Mr. Marouf and/or a representative would arrive at the hearing. That did not occur, and the Panel commenced the hearing immediately following the fifteen-minute break.

At the beginning of the hearing (i.e., following the fifteen-minute break), an Affidavit of Service was provided which showed that on May 15, 2023, Mr. Marouf was personally served with the Notice of Hearing for the penalty phase of this matter and a copy of the Rules of Procedure of the Discipline Committee of the PEO.

The Panel’s Independent Legal Counsel (“ILC”) advised that pursuant to the *Statutory Powers Procedure Act*, R.S.O. 1990, c. S.22 (“SPPA”) reasonable notice of a hearing must be given. He stated that

personal service, which was the manner in which Mr. Marouf was served, is the best form of notice. He further stated that, technically, pursuant to section 7 of the SPPA, no notice of the penalty phase of the proceeding was required because Mr. Marouf had previously failed to attend the merits phase of the hearing after being given sufficient notice. Nevertheless, he advised that reasonable notice had been given and the penalty phase of the hearing could proceed in Mr. Marouf’s absence. Counsel for the Association agreed with ILC’s advice in this regard.

Based on the evidence, the advice of ILC and the position of counsel for the Association, the Panel concluded that Mr. Marouf was given reasonable notice of the hearing pursuant to sections 6 and 7 of the SPPA and that the penalty phase of the hearing could proceed in his absence.

DECISION ON THE MERITS

The allegations in this case, as taken directly from the Statement of Allegations and as reflected in the Decision on the Merits, were as follows:

It is alleged that Kazi Abdul Marouf, P. Eng. (“Marouf”) is guilty of professional misconduct as defined in the *[Professional Engineers] Act* and Regulation 941 [of the Act], as follows:

1. At all material times, Marouf was a professional engineer licensed pursuant to the Act. Marouf holds a bachelor’s degree in applied science from the University of Ottawa.

2. The Complainant, Tim Curtis (“Curtis”), was at all material times the President of Niagara-on-the-Lake Hydro (“NOTLH”).
3. On May 11, 2017, Marouf was hired by NOTLH as its Vice President, Operations.
4. Between March 25, 2019 and August 20, 2020, Marouf engaged in a course of fraudulent activity against his employer, NOTLH, consisting of the fabrication, delivery and approval of a fraudulent quote for engineering services to NOTLH, a fake purchase order, and approval for payment by NOTLH of 17 invoices for fictitious engineering services and supplies totalling \$446,074.81, resulting in the theft by Marouf of that amount from his employer.
5. On September 14, 2020, Marouf was confronted by NOTLH. He admitted to the fraud, and his employment was terminated for cause on that date.
6. Marouf was arrested on January 12, 2021, and was charged the following day with the offence of fraud over \$5,000 contrary to s. 380(1)(a) of the Criminal Code (Canada). He pleaded guilty to that charge on September 7, 2021, and he was convicted of that offence.
7. Prior to the guilty plea and the sentencing, which took place on September 27, 2021, Marouf had made payments to NOTLH amounting to restitution of the entire amount misappropriated.
8. It is therefore alleged that Marouf is guilty of professional misconduct as defined in ss. 28(2)(a) of the Act, in being found guilty of an offence relevant to his suitability to practise.
9. It is further alleged that the conduct of Marouf described herein also amounted to professional misconduct under section 72(2)(j) of Regulation 941.

As noted above, Mr. Marouf pleaded guilty and was subsequently found guilty of fraud over \$5,000 contrary to Section 380(1)(a) of the Criminal Code (Canada). He was sentenced to a conditional sen-

tence of two years less a day which could be served in a community as long as Mr. Marouf obeyed various enumerated conditions.

As noted above, in the Decision on the Merits, this Panel found Mr. Marouf guilty of professional misconduct as defined in Section 28(2)(a) of the Act and Section 72(2)(j) of Regulation 941 of the Act. Section 28(2)(a) of the Act states:

- (2) A member of the Association or a holder of a certificate of authorization, a temporary licence, a provisional licence or a limited licence may be found guilty of professional misconduct by the Committee if,
 - (a) the member or holder **has been found guilty of an offence relevant to suitability to practise, upon proof of such conviction;** or [emphasis added]
 ...

With respect to Section 28(2)(a) of the Act, in the Decision on the Merits, the Panel noted that Mr. Marouf has been found guilty of the offence of fraud over \$5000 contrary to Section 380(1)(a) of the Criminal Code. The Panel stated that it believes that this offence is relevant to Mr. Marouf’s suitability to practise as a professional engineer.

Section 72(2)(j) of Regulation 941 states:

- “professional misconduct” means,
- ...
- (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,** [emphasis added]
- ...

In the Decision on the Merits, the Panel stated that it found that Mr. Marouf’s actions rise to the level of disgraceful, dishonourable and unprofessional conduct.

PEO’S SUBMISSIONS ON PENALTY

Counsel for the Association sought revocation of Mr. Marouf’s licence. Counsel for the Association stated that pursuant to section 28(4)(a)¹ of the Act, the Panel has the authority to revoke Mr. Marouf’s license. Further, counsel for the Association advised that pursuant to the Act, where the Discipline Committee revokes a member’s license, its finding and the order of the Discipline Committee must be published with the member’s name². The publication can be with or without reasons.

The Panel decided to revoke Mr. Marouf’s license, as described more particularly below. In addition, the Panel decided that the find-

ings and order in this matter would be published with reasons, given the importance of providing members of the profession with particulars of the case. In deciding to publish with reasons, the Panel considered factors including the need for general deterrence and the serious nature of the matter.

Jurisdiction

Counsel for the Association stated that although Mr. Marouf is not currently a member of the PEO, the Panel has jurisdiction in this matter. This is because Mr. Marouf's misconduct occurred when he was a member of the PEO. The authority for this is section 22.1(1) of the Act. The Panel agrees that it has jurisdiction in this matter pursuant to Section 22.1(1)³ of the Act.

Aggravating and Mitigating Factors

Counsel for the Association noted aggravating and mitigating factors in the case. The mitigating factors that she noted were that this was Mr. Marouf's first offence and that he repaid the stolen money. The aggravating factors included the size and duration of the fraud. Counsel for the Association also stated that Mr. Marouf was very well-respected within Niagara-on-the-Lake Hydro ("NOTLH") and in his community, which made this a very serious breach of trust.

In addition, counsel for the Association pointed to the Victim Impact Statement from the criminal trial, dated July 21, 2021, which outlined some of the aggravating factors in this matter. This Victim Impact Statement was printed on NOTLH letterhead and signed by Tim Curtis ("Mr. Curtis"), the

President of NOTLH. The Victim Impact Statement noted the shock and betrayal that people felt when it was discovered that Mr. Marouf had committed a fraud of such magnitude. It also stated that NOTLH would be seeking revocation of Mr. Marouf's Professional Engineer (P.Eng.) license. As noted above, Mr. Curtis complained to the PEO about Mr. Marouf's conduct, which resulted in this matter before this Panel. In his complaint to PEO Mr. Curtis did, in fact, seek revocation of Mr. Marouf's P.Eng. license.

In addition, counsel for the Association noted that one of the purposes of a penalty is protection of the public. Furthermore, she stated that the penalty of revocation would maintain the reputation of the profession in the eyes of the public. She mentioned the relevance of general deterrence and the importance of letting the public know that this matter has been taken very seriously. Counsel for the Association also stated that if Mr. Marouf's license was revoked, he would not be able to apply for reinstatement for two years⁴ and the Registrar would have standing to make submissions regarding any potential reinstatement.

Counsel for the Association presented caselaw to support the argument that Mr. Marouf's license with the Association should be revoked. One of these cases was the PEO Discipline Committee's decision in *PEO v. Serdar Kalaycioglu* ("Kalaycioglu Decision"), which followed from a hearing that took place before a panel of the Discipline Committee on February 17, 2009. Although this decision was unreported, a summary of the decision can be found in PEO's July/August 2009 *Engineering Dimensions* publication.

In this case, there was also a criminal matter involving Mr. Kalaycioglu. As a result of the criminal matter, Mr. Kalaycioglu was found guilty of 11 counts of wire fraud and 1 count of conspiracy to commit wire fraud by the United States district court in the southern district of the State of Florida. He was sentenced to 324 months of imprisonment and ordered to pay \$6,722,592.29 in restitution.

As a result, a panel of the Discipline Committee of the PEO revoked Mr. Kalaycioglu's license and directed that the findings of the Discipline Committee proceedings would be published with names.

¹Section 28(4)(a) of the Act states:

28 (4) Where the Discipline Committee finds a member of the Association or a holder of a certificate of authorization, a temporary licence, a provisional licence or a limited licence guilty of professional misconduct or to be incompetent it may, by order,

(a) revoke the licence of the member or the certificate of authorization, temporary licence, provisional licence or limited licence of the holder;

²Section 28(4)(i) and 28(5) of the Act state the following:

28(4) Where the Discipline Committee finds a member of the Association or a holder of a certificate of authorization, a temporary licence, a provisional licence or a limited licence guilty of professional misconduct or to be incompetent it may, by order,

...

(i) subject to subsection (5) in respect of orders of revocation or suspension, direct that the finding and the order of the Discipline Committee be published in detail or in summary and either with or without including the name of the member or holder in the official publication of the Association and in such other manner or medium as the Discipline Committee considers appropriate in the particular case;

28(5) The Discipline Committee shall cause an order of the Committee revoking or suspending a licence or certificate of authorization, temporary licence, provisional licence or limited licence to be published, with or without the reasons therefor, in the official publication of the Association together with the name of the member or holder of the revoked or suspended licence or certificate of authorization, temporary licence, provisional licence or limited licence.

This, along with the other decisions cited by counsel for the Association, support the Panel's decision. (*College of Nurses of Ontario v. Pierce-Nagel*, 2013 CanLII 93845 (ON CNO); *Ontario College of Teachers v. Williams*, 2008 ONOCT 67 (CanLII)).

PANEL'S DECISION AND REASONS ON PENALTY

As noted above, the Panel decided to revoke Mr. Marouf's license, and decided that the findings and order in this matter would be published with reasons. In doing so, the Panel accepted the following submissions by counsel for the Association:

- The size and duration of the fraud were aggravating factors in this matter;
- The respect that Mr. Marouf had at NOTLH and in his community made this a very serious breach of trust;
- The Victim Impact Statement supports the penalty;
- This penalty is important to protect the public and for general deterrence reasons;
- This penalty is important because the Registrar will have standing to make submissions if Mr. Marouf seeks reinstatement pursuant to the Act; and
- The caselaw supports the penalty in this matter.

Mr. Marouf did not attend the hearing before this Panel and therefore did not express remorse to the engineering profession at the hearing. There was some evidence in the hearing record in the case before this Panel, that Mr. Marouf felt and expressed remorse in the criminal matter. For example, in the Justice Calderwood's Reasons for Sentence in the criminal proceedings, delivered orally on September 27, 2021, Justice Calderwood stated that both in Mr. Marouf's words and in his guilty plea, he showed evidence of remorse.

Nevertheless, as noted above, Mr. Marouf did not express remorse to the engineering profession at the hearing before this Panel. ILC stated that since the Association has an obligation to prove the allegations in its case, it would be difficult to describe Mr. Marouf's lack of attendance and expression of remorse as an aggravating factor. However, it would be fair to describe his lack of attendance and expression of remorse as an absence of a mitigating factor. The Panel agrees that Mr. Marouf's lack of attendance and expression of remorse at the hearing is an absence of a mitigating factor.

Oral Order

Immediately following the hearing, the Panel deliberated. The Panel then returned to the hearing and orally ordered that Mr. Marouf's Professional Engineer (P.Eng.) licence is revoked effective on the hearing date being June 27, 2023. The Panel also ordered that its decision would be published with reasons.

Written Order

The Panel released a written order reflecting its oral order on June 29, 2023. In particular, the Panel ordered that:

1. Pursuant to subsection 28(4)(a) of the Act, the licence of Mr. Marouf is revoked, effective June 27, 2023; and
2. Pursuant to subsections 28(4)(i) and 28(5) of the Act, the findings and order of the Discipline Committee shall be published with reasons and with the name of Mr. Marouf in the official publication of the Association.

The Panel reiterates the June 27, 2023, oral order and the June 29, 2023, written order in this Decision and Reasons, for the reasons stated above. Note that the PEO did not seek costs from Mr. Marouf and no costs were ordered.

Alisa Chaplick, LL.B., LL.M., signed this Decision and Reasons for the decision as Chair of this Discipline Panel and on behalf of the members of the Discipline Panel: Tommy Sin, P.Eng., and Rishi Kumar, P.Eng.

³ Section 22.1(1) of the Act states:

22.1 (1) A member who resigns or a holder of a licence, temporary licence, provisional licence, limited licence or certificate of authorization that is cancelled or revoked continues to be subject to the jurisdiction of the Association in respect of any professional misconduct or incompetence referable to a time when the person was a member or holder.

⁴ Section 37.1(1) of the Act states:

37.1(1) A person whose licence, certificate of authorization, temporary licence, provisional licence or limited licence has been revoked for cause under this Act, or whose membership has been cancelled for cause under a predecessor of this Act, may apply in writing to the Registrar for the issuance of a licence, certificate of authorization, temporary licence, provisional licence or limited licence, but such application shall not be made sooner than two years after the revocation.

SUMMARY OF DECISION AND REASONS

On allegations of professional misconduct under the *Professional Engineers Act* (the “Act”) regarding the conduct of Edward J. Ulrich, P. Eng. (the “Member” or “Ulrich”), a member of the Association of Professional Engineers of Ontario (the “Association” or “PEO”).

The Panel of the Discipline Committee heard this matter electronically via videoconference on April 11, 2023.

AGREED STATEMENT OF FACTS & DECISION ON MISCONDUCT

In October 2017, Edward J. Ulrich, who was at all material times a licenced professional engineer, took design responsibility for two additions to a building he was selling, and provided design drawings to the Town of Lincoln in support of this. In an Agreed Statement of Facts (ASF), Ulrich admitted that the drawings were deficient and that they failed to make reasonable provision for the safeguarding of life, health and property of the additions’ occupants. Ulrich accepted as correct the findings, opinions and conclusions of an expert report prepared for PEO. Based on these admissions, the parties agreed that Ulrich was guilty of professional misconduct as follows:

- a. Preparing and providing inadequate drawings and specifications for the project, amounting to professional misconduct as defined by sections 72(2)(a), (b), (d) and (j) of Regulation 941; and
- b. Providing professional engineering services to the public without a valid Certificate of Authorization, amounting to professional misconduct as defined by section 72(2)(g) of Regulation 941.

In clarification of this agreement the parties stated that, with respect to Section 72(2)(j), Ulrich’s conduct was unprofessional, but was not alleged to be disgraceful or dishonourable.

At the hearing, Ulrich admitted to the information set out in the ASF. The panel conducted a plea inquiry and was satisfied that the Member’s admissions were voluntary, informed, and unequivocal.

The Panel accepted the Member’s admissions, and the facts set out in the ASF. On that basis, the Panel found the Member guilty of professional misconduct under section 72(2)(a), (b), (d), (g), and (j) of Regulation 941 under the Act.

JOINT SUBMISSION ON PENALTY & DECISION ON PENALTY

The parties had agreed to a Joint Submission on Penalty (JSP), which was provided to the panel. At the hearing, both parties submitted that the penalty proposed in the JSP was appropriate in the circumstances. Counsel for the Association presented several cases in support of the argument that the penalty agreed to in the JSP falls within the range of penalties that have been previously ordered by discipline panels. She also noted that, pursuant to the *Professional Engineers Act* (the “Act”), when a suspension is ordered, publication in PEO’s official publication with names is mandatory.

There was considerable discussion regarding item (e) of the JSP quoted below. The Panel expressed concern that the safety of the public would not be adequately protected if the licence restriction preventing Ulrich from practicing structural engineering was immediately suspended for 14 months pending the completion of examinations. The Association’s lawyer provided reassurances that this was considered during the penalty negotiations. PEO’s position was that they made an assessment that there was minimal risk to the public, as the professional misconduct relates to Ulrich’s drawings, and they stated that there was no evidence that the structure of the building was unsound. Another factor that informed the PEO’s assessment was that Ulrich does not appear to carry on an active practice as a structural engineer at this time.

Previous Supreme Court decisions have instructed regulatory tribunals that joint submissions must not be rejected except when acceptance would be contrary to the public interest, which is a high threshold to meet. The Panel determined that this was not the case in the circumstances, and therefore it was satisfied that the penalty proposed in the JSP was appropriate.

The Panel then ordered the following penalty:

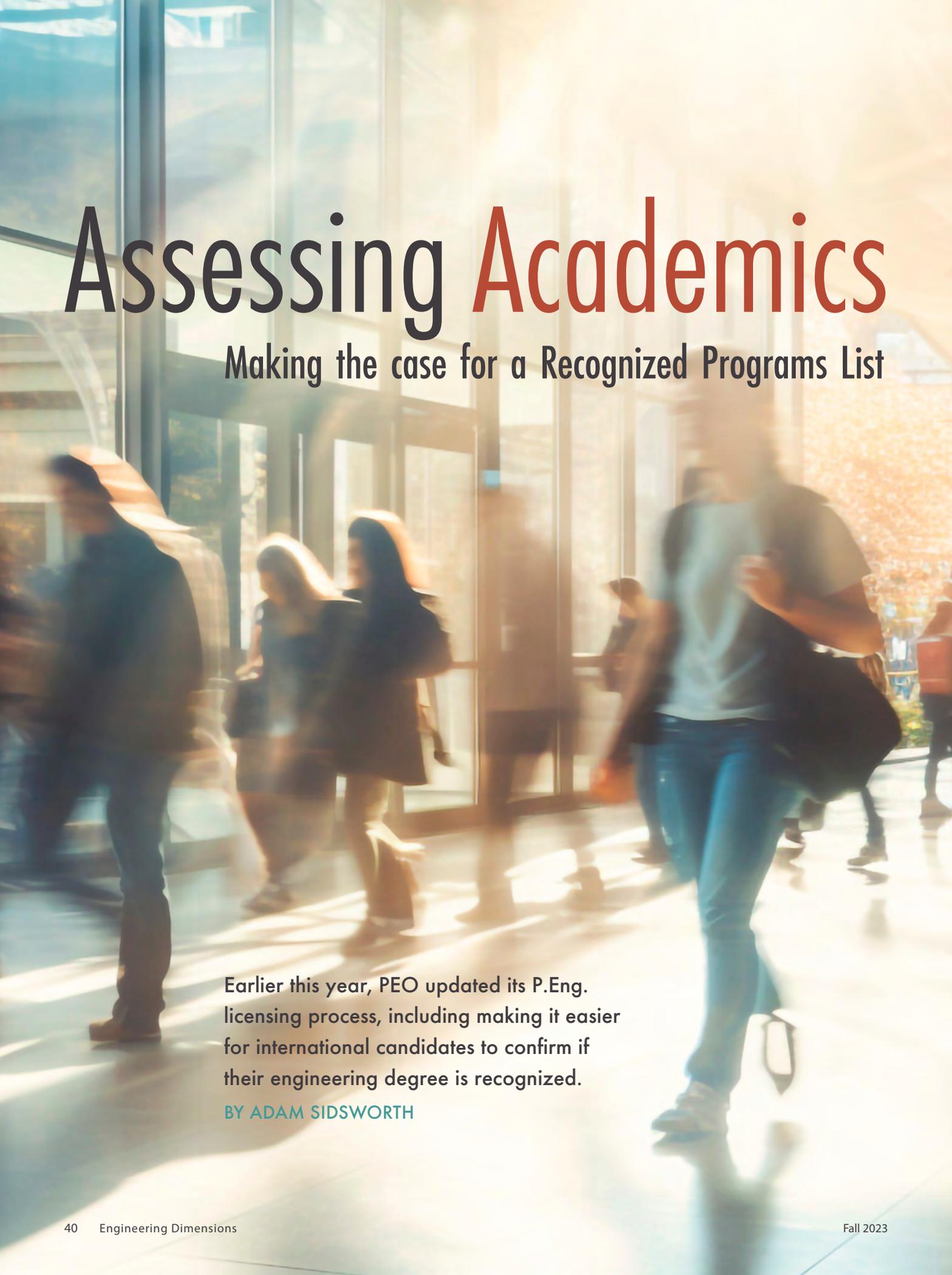
- a) Pursuant to s. 28(4)(f) of the Act, Ulrich shall be reprimanded, and the fact of the reprimand shall be recorded on the Register permanently. The Panel administered the reprimand on the date of the oral hearing, being April 11, 2023;
- b) Pursuant to s. 28(4)(b) of the Act, Ulrich’s license shall be suspended for a period of two (2) months, commencing on a date to be agreed, such date to be no later than three (3) weeks after the date of the Discipline Committee’s decision. The parties decided that the suspension would commence on the same day as the hearing and the oral decision rendered at the hearing – i.e. April 11, 2023;

- c) Pursuant to sections 28(4)(i) and 28(5) of the Act, the finding and order of the Discipline Committee shall be published in summary form in PEO's official publication, with reference to names;
- d) Pursuant to s. 28(4)(d) of the Act, it shall be a term, condition or restriction on Ulrich's license that he shall, within fourteen (14) months of the date of the Discipline Committee's decision, successfully complete PEO's Advanced Structural Analysis (07-Str-A4) and Advanced Structural Design (07-Str-A5) examinations;
- e) Pursuant to s. 28(4)(e) and (k) of the Act, a restriction shall be imposed upon Ulrich's licence prohibiting him from practicing structural engineering, which restriction shall be suspended for a period of fourteen months from the date of the Discipline Committee's decision. If Ulrich successfully completes the examinations referred to above at any time before or after the fourteen months period referred to above, this restriction shall be suspended indefinitely;
- f) Pursuant to s. 28(4)(h) of the Act, Ulrich shall be required to pay a fine in the amount of \$2500, within 30 days of the decision of the Discipline Committee; and
- g) There shall be no order as to costs.

At the conclusion of the Hearing, the Panel administered an oral reprimand to the Member in open session.

On May 26, 2023, Robert Willson, P.Eng., signed the Decision and Reasons for the decision as Chair of the Discipline Panel and on behalf of the Members of the Discipline Panel: Alisa Chaplick, LL.B., LL.M, and Albert Sweetnam, P.Eng.

The complete Decision and Reasons in this matter is available on PEO's website.



Assessing Academics

Making the case for a Recognized Programs List

Earlier this year, PEO updated its P.Eng. licensing process, including making it easier for international candidates to confirm if their engineering degree is recognized.

BY ADAM SIDSWORTH



At a May 23 press conference in Toronto, ON, Monte McNaughton, Ontario's minister of labour, immigration, training and skills development, praised PEO for becoming the first regulator in the province to remove Canadian work experience from its licensing requirements following provincial legislation that aimed to promote fairness and transparency in the licensing process of regulated professions.

Under amendments to the *Fair Access to Regulated Professions and Compulsory Trades Act* (FARPACTA), PEO and other Ontario professional self-regulators in non-healthcare sectors are, among other things, required to make a licensing decision for 90 per cent of internationally trained applicants within six months of accepting a complete application and no longer require Canadian work experience as part of licensing requirements, as of July 1 and December 2, 2023, respectively.

PEO's elimination of its Canadian engineering experience requirement aimed to remove barriers to licensure for skilled newcomers, but it addressed only the experience component of its licensing application process. PEO's process also contains an important academic component, which assures minimum levels of academic training for potential licence holders. Although the amended FARPACTA legislation didn't specifically require PEO to amend its academic requirements, PEO recognized that it needed to speed up and make more transparent its academic assessments of internationally trained candidates.

PEO's FARPACTA-COMPLIANT LICENSING PROCESS

In November 2022, Council approved changes to the licensing process that enabled PEO to become FARPACTA compliant, including supporting the use of a competency-based assessment model to confirm candidates have met the engineering work experience requirement (see p. 46). At the same meeting, Council took the opportunity to standardize the academic requirement specifically for candidates who hold an engineering degree from an international institution. This supported PEO's commitment to

make licensing decisions within the six-month decision-making timeline, regardless of whether they earned their degree from an accredited Canadian program or an international institution.

Under the FARPACTA-compliant licensing process, all candidates now require a four-year undergraduate degree in engineering. Citing Regulation 941, Council stipulated that any graduate of a four-year Canadian engineering undergraduate degree accredited by the Canadian Engineering Accreditation Board (CEAB) is deemed to have satisfied the academic component for licensure. And for graduates of international engineering programs, Council introduced a Recognized Programs List (RPL) that enables PEO to recognize international programs that meet the requirements for professional registration in that country. Additionally, all international candidates must successfully complete and pass a standard technical exam program before the academic component for licensure can be considered complete (see p. 43).

WHAT IS THE RECOGNIZED PROGRAMS LIST?

The RPL is a repository maintained by PEO to provide information on an educational institution, including the undergraduate engineering degrees and disciplines it offers and the education, quality assurance, registration and licensure systems of the country in which it is located. Originally developed in 2010, the RPL underwent a major overhaul in 2021 and provides PEO with:

- The existence of an institution, its programs and if its programs meet professional engineering licensing requirements in its home country; and
- Information on a country's engineering programs, such as length and whether the country has signed the Washington Accord or the Accreditation Board for Engineering and Technology.

It is important to note that a recognized international degree is not equivalent to CEAB accreditation. The CEAB certifies the content of undergraduate Canadian



WHAT IS CEAB ACCREDITATION?

Under PEO's FARPACTA-compliant licensing process, PEO mandates that all candidates for licensure hold a bachelor's degree in an engineering program that is accredited by the Canadian Engineering Accreditation Board (CEAB), or a bachelor's degree that is on the Recognized Programs List plus the successful completion of a technical exam program. But what is a CEAB-accredited degree?

CEAB-accredited engineering degrees are undergraduate degrees recognized as meeting basic academic criteria. Post-secondary institutions across Canada can apply to the CEAB, an Engineers Canada board that accredits undergraduate engineering degrees, to ensure their engineering programs are recognized for professional engineering licensure. Presently, 279 undergraduate engineering degree programs at 44 post-secondary institutions have been accredited. Graduates of an accredited engineering program benefit because:

- Accredited programs are recognized by all 12 provincial and territorial engineering regulators in Canada and internationally;
- Regular accreditation ensures the continual improvement of accredited programs; and
- Accreditation ensures that the program is meeting the high standards of licensure.

engineering degrees on behalf of the provincial and territorial engineering regulators (see "What is CEAB accreditation?" sidebar). The RPL, on the other hand, only verifies the existence and status of programs in other countries. It is because of this that graduates of a recognized RPL-listed program must complete a set of technical exams to achieve equivalent academic qualifications. (Candidates from an international program outside Canada and the United States must also provide a course-by-course report through World Education Services for each program they completed.)

"An RPL-listed degree by itself is not equivalent [to a CEAB program]," confirms Cliff Knox, P.Eng., MBA, FEC, manager, applications and academic assessment at PEO. Knox explains that it's only in conjunction with completing the technical exam program that PEO will accept it as fulfilling the academic requirement for licensure. By using the RPL, PEO is able to standardize its decisions for international engineering graduates. "If a program is recognized as meeting the standard of professional registration in its home jurisdiction, we can accept that as a qualified degree, and that individual will be able to register for the technical exams to meet the academic requirement for licensure."

Additionally, Knox observes, this new process creates consistencies. "In the past, we've assessed individuals who have degrees on this recognized degrees list but assigned more exams than a standard confirmatory program," Knox says. "In other cases, there have been substantially equivalent programs that are not on the list that don't meet the standards for professional registration, yet we've assigned those candidates a confirmatory exam program. One rationale for adopting the RPL is that it's a fixed reference point."

Knox is careful to distinguish the programs included in the RPL from the Washington Accord, a multi-lateral agreement between bodies responsible for accreditation or recognition of tertiary-level engineering qualifications within 23 countries and seven provisional signatories with the aim to assist the mobility of professional engineers.

"The purpose of going with the RPL is to make sure we're making a consistent evaluation of all international degrees, including programs that fall under the Washington Accord," notes Knox. "One of the common misunderstandings is that any program listed under the Washington Accord is automatically updated. It is up to PEO as the regulator to determine if the programs are substantially equivalent or need to be supplemented with exams. By going with the RPL and the technical exam program, PEO now has a defined standard that can be easily verified."

Although the list of institutions and programs is both extensive and available to candidates in PEO's online portal, where they begin the application process, Knox recognizes that an individual's degree may not be listed. Knox's advice? Be diligent and don't walk away from the licensing process. "If the program is not on the list, candidates have the option to ask PEO to consider adding the program to the list. We don't want people saying, 'I don't see my program on the list, so I won't apply to PEO.'" **e**



TECHNICAL **EXAMS**

Complementing candidates' international engineering education

PEO's now-standardized technical exam program was designed so internationally trained candidates for licensure can demonstrate they meet the academic standards for a P.Eng. **BY ADAM SIDSWORTH**

When the provincial government introduced the omnibus *Working for Workers Act, 2021* in the provincial legislature in October 2021, it was aiming in part to make it easier for professionals who immigrate to Ontario to become successfully licensed—and, hopefully, employed—in their chosen profession. Many of the bill's proposed changes would have an impact on non-healthcare-sector regulators, including PEO.

The bill proposed, among other things, speedier decision times for internationally trained applicants, more flexibility to license during future COVID-like emergencies and, importantly, no requirements for Canadian professional experience to become licensed.

"I am very pleased the government intends to propose several important amendments that would...better the lives of new Canadians," Fairness Commissioner Irwin Glasberg was quoted as saying. "These proposed changes would help to improve registration practices, address unfair Canadian experience requirements and remove related barriers for internationally trained professionals and tradespersons."

However, one thing was clear: PEO would need to considerably improve its decision times, especially for its academic assessments of internationally trained candidates for licensure.

STANDARDIZING ACADEMIC REQUIREMENTS

Take the case of Maria, who earned her civil engineering degree from a university in Italy. Her program is recognized by the engineering regulatory body in Italy as meeting its academic requirements for licensure as an engineer in that country. But when she immigrated to Ontario in 2020, she discovered that it would take some time for her to become licensed by PEO, which had a lengthy process to recognize her degree. Additionally, she potentially had to write multiple technical exams assigned by PEO.

Maria's experience is fictional but typical of internationally trained candidates, who, prior to PEO launching its updated licensing process earlier this year, often waited longer to have their academics assessed than graduates of programs accredited by the Canadian Engineering Accreditation Board (CEAB). Additionally, the technical exam program, designed to make sure that an international candidate's education is equivalent to a CEAB program, was not standardized.

In May 2023, PEO implemented changes to its licensing process to comply with amendments to the *Fair Access to Regulated Professions and Compulsory*

Trades Act as prescribed by the *Working for Workers Act, 2021*, which officially passed in December 2021, to ensure fairness for internationally trained candidates for licensure. All candidates for licensure now require an undergraduate engineering degree accredited by the CEAB or an undergraduate degree on PEO's Recognized Program List (see p. 40) accompanied by successful completion of a standardized technical exam program.

WHAT IS A TECHNICAL EXAM PROGRAM?

PEO's technical exam program is designed to confirm that an internationally trained candidate for licensure has learned a curriculum that is similar to what is offered at a CEAB-accredited program. The technical exam program consists of four exams drawn from three categories. Two exams are drawn from Group A exams, which measure an applicant's grasp of subject areas common for most accredited academic programs in the corresponding engineering discipline. One exam must be drawn from Group B exams, which are designed to demonstrate an applicant's grasp of subject areas corresponding to a concentration or specialization in a sub-discipline. And one exam must be written from the complementary studies, which correspond to non-technical subjects that relate to general studies or humanities electives that are part of all accredited Canadian undergraduate engineering programs, such as engineering economics, sustainability, health and safety or the social impact of engineering.

A pass is considered 50 per cent or higher for each exam taken, and the average for the three exams drawn from Group A and Group B must be at least 55 per cent.

"Our exams are set at a certain level, where we know that it is particularly challenging, so 50 per cent is not unreasonable," asserts Cliff Knox, P.Eng., FEC, manager, applications and academic assessment for PEO. "If the exams were set at a lower level of comprehension, at the comprehension of a first-year student, you would expect the passing grade would be more in the 65 to 70 per cent range."



Knox notes that candidates' ability to prepare for the exam is reflected in the variety of grades PEO sees from candidates. Some candidates may require two or three attempts at the same exam to get a passing grade, while others obtain a high grade on the first attempt. "We've had individuals take multiple exams in a sitting on the same day and come out with scores in the 90s or perfect papers. It reflects on the candidate's preparation for the exam," Knox says.

Knox also adds that the technical exams are not designed to demonstrate a candidate's mastery of a particular university course. Rather, they demonstrate the candidate's knowledge in that area of engineering as well as any experience they've gained along the way.

SELF-CHOSEN EXAM TOPICS

PEO's technical exams are offered in partnership with the engineering and geoscience regulators in British Columbia and Alberta, with Engineers and Geoscientists BC in charge of the scheduling and registering of applicants for particular exams; the Association of Professional Engineers and Geoscientists of Alberta in charge of proctoring the exams, which are administered virtually; and PEO providing the exams and marking them. Indeed, the majority of the over 400 exams available for licensure candidates to choose from were designed prior to the FARPACTA-driven licensing changes to PEO's licensing process.

The biggest change is that candidates are no longer required to write from a list of exams under the discipline they studied during their undergraduate engineering degree. Candidates are free to choose the exams they will write, so long as two are from Group A, one from Group B and one from the complementary exams.

"Many people graduate in one discipline, and they work within a very narrow scope of practice in that discipline, or they may work in an unrelated discipline," notes Knox. "In Ontario and in Canada, we don't license in specific disciplines; we decided against the specialist route. It gives PEO flexibility, but it also puts the onus on the practitioner to make sure they are competent in that field."

For example, a graduate of a chemical engineering program could write three exams related to electrical engineering. However, Knox suspects that most candidates' choice of technical exams will ultimately be closer to their engineering experience. "I had one person who said, 'I have a degree in mechanical engineering, but all

of my experience after graduation has been in civil engineering, so I think I should write civil engineering exams,'" observes Knox. "That individual would now be free to choose civil engineering under the new system, whereas under the old system, we would have assigned confirmatory exams only in mechanical engineering."

A SELF-PACED EXAM PROGRAM

Another advantage, according to Knox, is that prospective applicants are free to write the technical exams at their own pace. Under the legacy system, applicants must begin their assigned exams within two years and have to complete those exams within eight years. But under the FARPACTA-compliant system, there is no timeframe, since a candidate now writes all technical exams before the application is submitted and finalized. "Under our current process, you can take as long as you want because it's before you're an applicant," observes Knox.

As for Maria? She ultimately earned her P.Eng. from PEO. But for the countless international engineering graduates applying to PEO for licensure under the new FARPACTA-compliant process, the application process has become much simpler. **e**

ASSESSING EXPERIENCE

THE ROAD TO CBA

PEO has adopted a competency-based assessment model with the aim to improve fairness, consistency and transparency in evaluating the experience of all candidates seeking engineering licensure in Ontario.

BY MARIKA BIGONGIARI





Na pivotal stride taken in May, PEO made big changes to its licensing process, including the way it assesses the experience requirement for licensure for all candidates by adopting a competency-based assessment (CBA) model. At the same time, PEO ceased requiring that 12 of the minimum 48 months of verifiable and acceptable engineering experience be achieved in Canada—a move the CBA model's approach made possible.

Although the impetus for change stems primarily from amendments to Ontario's *Fair Access to Regulated Professions and Compulsory Trades Act* (FARPACTA), this shift is not an arbitrary pivot. Rather, it represents the culmination of years of careful advice, guided by counsel from a diverse range of authoritative voices. Experts and official entities alike have advocated for changes made possible by the CBA model, recognizing its capacity to introduce objectivity, transparency and consistency into the evaluation of all candidates for engineering licensure in Ontario.

WHAT IS CBA?

The CBA methodology is a robust framework for evaluating readiness for engineering licensure, scrutinizing 34 distinct competencies required for safe and effective engineering practice, including technical expertise, problem-solving, communication and ethics (see "CBA framework" sidebar, p. 49). This holistic approach establishes a standardized and impartial evaluation process that aims to ensure a fair and unbiased registration process for all candidates while only licensing individuals who attain the mandated threshold of competency.

In a pioneering initiative, Engineers and Geoscientists BC (EGBC) launched the CBA model in 2012, blazing a trail as the first provincial engineering regulator to adopt this standard. Today, all of Canada's provincial engineering regulators except Nova Scotia have introduced the CBA model to assess work experience.

While rooted in the framework developed by EGBC, PEO has tailored the system to Ontario's needs. "We created our own system," says Adeilton Ribeiro, P.Eng., manager, experience assessment, for PEO. "We adapted EGBC's system to our needs. For example, we clarified that Canadian environment competencies may be demonstrated by work examples obtained abroad."

To demonstrate each competency, licensure candidates must provide work experience details, including a work experience summary and specific, detailed examples. Central to the CBA model is the requirement for candidates to demonstrate the ability to apply their engineering knowledge reliably and safely across diverse contexts. They must also demonstrate awareness of their professional limitations and be prepared when necessary to either develop their expertise or ask for help.

Work examples must include a brief overview of a specific situation or problem, the action taken in response to the situation and the outcome or impact of their actions. PEO's *Competency-Based Assessment Candidate's Guide* provides example indicators to guide candidates in determining the type of work that would satisfy each competency.

Consider Competency 1.7, for example, which requires candidates to demonstrate an understanding of systems and components of systems. The indicators for this competency call for work examples that demonstrate an understanding of each element in a process; an understanding of the inter-

SPOTLIGHT ON VALIDATORS



Validators play a crucial role within the CBA process by assuring PEO that candidates have met the licensing prerequisites outlined in the regulations under the *Professional Engineers Act*.

WHAT DO VALIDATORS DO?

Validators validate the candidate's level of competence for each of the 34 key competencies and provide overall feedback on the candidate's readiness for licensure. Notably, *validation confirms the acquisition of work experience and does not entail an evaluation of the quality or competence of the work*. Specifically,

actions and constraints in the behaviour of the overall system; and/or the management of processes within the overall system, including monitoring and, where needed, modifying processes to achieve optimum outcomes.

One of the hallmarks of the CBA evaluation process is transparency. Specifically, it provides candidates with clear expectations by outlining their responsibilities during the process and highlights stakeholders' accountability by specifying their roles. "The list of competencies that must be addressed and the narrowed, specific field in which candidates must submit their examples clearly outline what is expected of them when it comes to submitting their experience records," says Ribeiro. "Since all rules and conditions are set from the start, the CBA framework enhances stakeholder accountability during the process. Consequently, CBA mitigates subjectivity and promotes consistency."

During the process, the candidate's responses to all competencies are rated by the candidate, validator(s) and assessors (also known as PEO's qualifications assessment officers) (see "Spotlight on validators" sidebar, above). "The assessment of a candidate's engineering experience through the CBA model includes a competency rating scale, which is used to determine whether a candidate has achieved the required level of competence," says Ribeiro. "This scoring rubric allows each category to be mathematically measured, like a test or exam. So, it is very objective."

validators speak to the level of competence rather than the time a candidate claims to have worked at a given place of employment.

WHO CAN BE A VALIDATOR?

For engineering work experience gained in Canada, the validator must be a professional engineer who was registered during the period they are validating. For international experience, it is recommended that validators be senior engineering practitioners licensed as engineers in their jurisdiction.

The validator must have direct knowledge of the candidate's work and have provided professional supervision during that period. Ideally, the validator should have taken technical responsibility for the candidate's work and may have done so by holding a variety of titles such as manager, mentor, client or colleague. However, eligibility to serve as a validator extends to those who are familiar with a candidate's work, even if they did not directly assume technical responsibility.

Validators can come from different workplaces if they have the required familiarity with the candidate's engineering work experience and can confidently rate their competencies. And although it is ideal for validators to come from the same discipline as the candidate, this is not a strict requirement. PEO reserves the right to determine validator acceptability.

More specifically, the rating scale measures the level of overall competence rather than the level of success a candidate achieved in a specific situation. "When rating the competencies for professional engineering licensure, it must be clear that they are not only performing well in the circumstances they have encountered to date, but they have also demonstrated the capacity to handle probable future situations," says Ribeiro.

Once the candidate has provided the required information and all competencies have been validated, the experience requirement is deemed complete, allowing the candidate to move on to other components of the licensing application before submitting it to PEO.

THE ROAD TO CBA

Ultimately, embracing the CBA model was a response to evolving regulatory demands and the pursuit of inclusivity, and it traces a journey shaped by key milestones. The impetus for change was the 2021 amendments to Ontario's FARPACTA legislation, compelling PEO to re-evaluate candidate assessment and licensure protocols. Among those changes, PEO was precluded from requiring Canadian experience, which was seen as a barrier to licensure for international candidates.

To become a licensed engineer in Canada, candidates must demonstrate minimum competence and equivalent knowledge of Canadian engineering laws, practices, standards, codes, conditions and climates. This required PEO to establish alternative methods of assessing competency in working in a Canadian environment.

But there's more to the story. A foundation was laid in 2006, when Ontario pioneered FARPACTA legislation to ensure transparency, objectivity, impartiality and fairness in the admission process for internationally trained candidates. A pivotal moment came in 2016, when the Office of the Fairness Commissioner

(OFC) conducted an audit of PEO's admission practices. While commendable in most facets, the requirement for one year of Canadian experience emerged as an area demanding refinement. This concern mirrored an earlier 2013 observation by the Ontario Human Rights Commission, spotlighting the same requirement as a human rights concern. And in 2019, an external review of PEO's regulatory performance reinforced these concerns, paving the way for change.

Soon after, Engineers Canada and admissions officials from across the 12 provincial and territorial engineering regulators embarked on a collaborative journey to address the challenge of Canadian experience through the existing CBA framework. The coalition identified eight engineering competencies, six of which PEO adopted, that demonstrate a candidate's knowledge of the Canadian environment. These competencies, serving as proxies for the 12-month Canadian experience requirement, were seamlessly integrated into the CBA system in 2020 to ensure public safety (see "Canadian environment competencies" sidebar, p. 50).

"The Canadian environment competencies not only demonstrate knowledge and experience of Canadian regulations, codes, standards, etc. but also engineering codes and standards used in Canada," notes Ribeiro. Consequently, candidates without Canadian experience can demonstrate Canadian environment competencies acquired abroad, provided they align with applicable Canadian standards. "A candidate working for Shell Nigeria, for example, may use the same American Petroleum Institute engineering standards used in Norway or Windsor, Ontario," explains Ribeiro.

The evolution continued into 2021 with a report commissioned by PEO's Anti-Racism and Anti-Discrimination Exploratory Working Group, characterizing the Canadian experience requirement as an unnecessary hurdle that disadvantaged individuals from certain backgrounds in terms of licensure and employment prospects.

Finally, in 2022, PEO engaged external consultants who embarked on a comprehensive comparative analysis of PEO's previous Five Quality Criteria (5QC) experience assessment method and CBA. The consultancy involved a rigorous psychometric evaluation, ultimately endorsing the CBA model as a robust, holistic representation of the engineering domain. Notably, the consultants found that CBA exhibited enhanced effectiveness by assessing a broader spectrum of competencies with clearer instructions. In contrast to CBA's 34 competencies, the 5QC method evaluated only five criteria: application of theory, practical experience, management of engineering, communication skills and the social implications of engineering.

In November 2022, PEO's Regulatory Policy and Legislation Committee echoed the consultants' recommendation, paving the way for a pivotal decision by Council to endorse the CBA model for engineering work experience assessment. In the same motion, Council also updated the academic requirements for licensure (see p. 40). This licensing pivot supported PEO's intention to shift both the academic and experience requirements to the pre-application stage of the licensing process, ultimately enabling PEO to meet the legislated six-month turnaround time for registration decisions and dispel the need for Canadian experience.

A FAIR CHOICE

With the CBA model complying with FARPACTA legislation, as well as ensuring competency to practise by accommodating international work experience, its role as a logical successor for experience assessment came into sharper focus. The CBA system also aligns with the OFC's guiding principles, the core tenets of which comprise transparent evaluations, objective assessments and consistent procedures. "The CBA allows for a fair and impartial assessment process independent of the candidate's area of expertise and where that experience was obtained," asserts Ribeiro. "The focus is solely on the candidate's competencies."

And although maintaining impartiality in assessment processes can be challenging, measures have been implemented in the CBA system to ensure that fairness, equity and objectivity are maximized. "The scoring rubric is shared with the candidate in detail beforehand. The evaluation process is transparent from the moment the candidate chooses what work examples to submit until the evaluation takes place," Ribeiro points out. "Because work examples are provided according to a particular competence, any subjectivity of experience assessment is significantly mitigated, resulting in a more objective, structured and consistent framework." **e**

CBA FRAMEWORK

PEO's CBA framework employs seven categories of 34 key competencies or skills. The categories represent the areas in which professional engineers must be competent to ensure effective practice and public safety and include key competencies required in that area. They include:

1. Technical (10 competencies)
2. Communication (three competencies)
3. Project and financial management (five competencies)
4. Team effectiveness (two competencies)
5. Professional accountability (six competencies)
6. Social, economic, environmental and sustainability (five competencies)
7. Personal continuing professional development (three competencies)

Each competency must meet a minimum level of 1 on the competency rating scale and an overall average level of 2 or 3 for each category. The rubric outlines six different levels of competency ranging from 0 to 5, where 0 means the candidate has no experience with the competency and 5 means they demonstrate the competency with advanced skills and without supervision.



CANADIAN ENVIRONMENT COMPETENCIES

A sub-set of six competencies function as indicators of knowledge and experience related to Canadian regulations, codes, standards, quality control, safety, professional accountability and communication. These competencies complement the existing 34 competencies and are designed to replace the previous requirement for one year of Canadian work experience.

It is mandatory for candidates to fulfill all six competencies by providing sufficient work experience examples from within Canada or the international standard equivalence that demonstrate knowledge of Canadian engineering laws, standards, practices and conditions. Validators play a key role in determining if an international candidate has work experience that reflects Canadian environment competency and must comment on how the international environment can be considered equivalent to a Canadian environment for each competency.

The Canadian environment competencies include:

1. Technical, including regulations, codes, standards and safety; safety awareness; and quality control, independent checks and review;
2. Communication, specifically the ability to effectively review technical documents;
3. Professional accountability, including the Code of Ethics; and
4. Social, economic, environmental and sustainability, including engineering and the public.

More information on CBA can be found in the *Competency-Based Assessment Candidate's Guide*, the *Validator Guide* and the CBA FAQ section on PEO's website.

WHY THIS ENGINEER IS WORKING TO EVOLVE LANGUAGE

By promoting gender-inclusive language, Emily Nichols aims to transform workplaces in male-dominated industries like engineering, one conversation at a time.

By Marika Bigongiari



Emily Nichols, P.Eng., speaks during her TEDx talk, "What if we didn't have to be 'one of the guys?'" at McMaster University earlier this year.

Emily Nichols, P.Eng., is on a mission to challenge the status quo. A seasoned engineer and speaker who teaches human skills for technical people—primarily connection, communication and creativity—Nichols is an advocate for change and inclusion in male-dominated industries like engineering.

Through her 2023 TEDx talk, "What if we didn't have to be 'one of the guys?'," which embodies the human skills she teaches, Nichols breaks down the barriers created by the pervasive use of gendered language. "Inclusive language is a communication tool that creates connection and sometimes requires creativity," explains Nichols. "Coming up with new ways of naming things or different ways to refer to people, for example."

In her TEDx talk, Nichols confronts the widely used term "guys" and its impact on workplace dynamics while showing how making small changes to the words we use can have a big impact on creating an environment where

women and individuals of all genders feel welcomed and valued. Her mission is especially relevant as a member of a profession where women have struggled to achieve representation. According to Engineers Canada's *2023 National Membership Report*, the number of practising women engineers in Canada is at less than 15 per cent.

Nichols, who spent decades practising engineering in manufacturing and agri-food processing, shares her career journey of being "one of the guys," emphasizing how seemingly harmless language can reinforce stereotypes and perpetuate exclusion.

THE COST OF FITTING IN

Nichols' passion for engineering began at a young age, sparked by her fascination with complex problem-solving. With a background in systems engineering, Nichols dove headfirst into manufacturing, where she contributed to product and process improvements at organizations like PepsiCo and Ingredion. "I loved it," recalls Nichols. "I wanted to learn all the things, and I just tried my best to fit in."

continued on next page

The late '90s and early 2000s were a time of quotas, making it even more challenging for women to establish themselves as professionals based on merit. "Drawing attention to your gender would risk this idea that you're there because you're the diversity hire. And I didn't want to be recognized for that. I wanted to be recognized for my work," explains Nichols. "I didn't want to talk about being a woman in engineering."

Determined to prove herself on merit alone, she feared acknowledging her gender might lead others to question her qualifications. Being "one of the guys" enabled her to blend in but also highlighted the subtle yet pervasive gender dynamics at play.

As time went on, Nichols noted the toll that trying to blend in took on her personally and professionally. She wanted to challenge the status quo, but the fear of jeopardizing her career kept her silent. Now working outside of the profession, Nichols is choosing to speak up. She also offers programs to organizations striving to improve inclusivity in the workplace.

"Because I'm not a practising engineer at this moment, I don't hesitate as much about speaking up or think about how that might set me apart," she notes. "That's a special position to be in. I wouldn't be surprised if there were many women who would like to say some of what I'm saying, but that's not going to serve them in advancing their careers because they still need to blend in."

Instead of thinking in binary terms—fitting in versus not fitting in—Nichols suggests there's a third option: "There's a next step, a space beyond 'one of the guys,' and that's that it doesn't matter: Where everybody is welcome regardless of gender, and you don't need to fit into this culture of men. You can just be."

THE POWER OF LANGUAGE

Nichols highlights the importance of using gender-neutral language in day-to-day interactions, urging mindfulness. By dropping gendered terms like "guys," "ladies" and "gentlemen," she explains how individuals can contribute to creating an inclusive and diverse environment that welcomes everyone's unique talents and contributions. "You have an impact on this," she stresses. "You can help change this. Starting with your words is one way to do it."

Nichols shares a story about an Ontario engineer who recently wrote to her to share the impact watching her TEDx talk had on him and his workplace. "He watched the talk, eliminated manpower from his vocabulary, and then directed his entire team of 40 people to watch the talk as well," shares Nichols.

**"WHEN WE THROW THE WORD 'GUYS' AROUND ALL THE TIME, IT MINIMIZES THE DIFFERENCES BETWEEN US."
—EMILY NICHOLS, P.ENG.**

Language plays a big part in reinforcing cultural norms and expectations, and it's at the core of Nichols' work. If a woman is referred to as "one of the guys," is it damaging? "On the surface, it can mean you're being included," observes Nichols. "But what I hope people will see when they watch my TED talk is that the words that we use reinforce an expectation we have in our minds. It isn't about changing your words to be politically correct or changing your words to say the right things. It's because if I notice that you have changed your words, that probably means you've changed your thoughts."

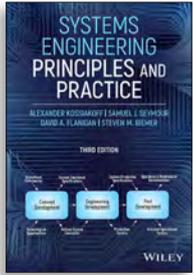
THOUGHTS BECOME THINGS

Nichols highlights the real-world implications of male-default language by using the example of personal protective equipment (PPE). "When we throw the word 'guys' around all the time, it minimizes the differences between us," she explains. "It doesn't recognize the full diversity of gender that we have in the workplace and what different people need for them to be safe."

Nichols points out that PPE was created with men in mind. When PPE doesn't fit properly on individuals who don't conform to the standard, it not only jeopardizes their safety and comfort and hinders overall performance, but it also adds to feelings of exclusion. "There's a connection between the thoughts and the words and then the physical environment," she explains. "We have lots of factories in Ontario that don't have appropriate facilities for women on the shop floor—bathrooms, change rooms, nursing areas, locker rooms. And it's not necessarily intentionally to harm women, to leave them out. But people don't think about it."

Nichols' story is not just a personal narrative; it reflects a broader challenge. By actively listening and learning from each other, Nichols believes engineers can create a profession that truly represents the diversity and potential of all its members. "Who can make a change in this profession?" asks Nichols. "It's the people who are in it." **e**

READ



Systems Engineering Principles and Practice (3rd Edition), by Alexander Kossiakoff, PhD, Steven M. Biemer, D.Eng., Samuel

J. Seymour, PhD, and David A. Flanagan, PhD, 2020: An interdisciplinary guide that includes discussions of model-based systems engineering, requirements analysis, engineering design, software design and industry best practices

Recent Advances and Future Trends in Pavement Engineering, edited by Patricia Kara de Maeijer, 2020: A collection of 12 articles that provides a comprehensive overview of pavement engineering, from recycled asphalt pavements and alkali-activated materials to destructive testing and non-destructive pavement monitoring by using fibre optics sensors

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The Naked Scientists

A Cambridge University podcast by a team of scientists, doctors and communicators who are helping the public understand and engage with the worlds of science, technology and medicine

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An educational materials science resource with explanations of fundamental concepts and in-depth discussions about advanced materials and techniques

The following events may have an in-person and/or online component. See individual websites for details.

ATTEND

OCTOBER 18–19
Big Data and AI, Toronto, ON

OCTOBER 20
International Conference on Nanomechanics and Nanomechanical Engineering, Montreal, QC

OCTOBER 24
International Conference Mechanical, Industrial and Production Engineering, Toronto, ON

NOVEMBER 2
OSPE: The Engineering Conference, Toronto, ON

NOVEMBER 7–9
Advanced Design & Manufacturing Expo, Toronto, ON

NOVEMBER 14–17
Municipal Engineers Association Conference, Point Edward, ON

NOVEMBER 16
International Conference on Marine Technology, Montreal, QC

NOVEMBER 18
PEO Chapter Leaders Conference, Toronto, ON

DECEMBER 29
International Conference on Artificial Intelligence in Renewable Energy Systems, Ottawa, ON

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THE ASSOCIATION HAS RECEIVED WITH REGRET NOTIFICATION OF THE DEATHS OF THE FOLLOWING LICENCE HOLDERS (AS OF AUGUST 2023).

ABEDIN, Joynal Oakville, ON	DELL, David James Sarnia, ON	HEIMRICH, Frederick Gordon Kitchener, ON	LOVSIN, Joseph Newmarket, ON
ADAMS, Clifford John Nepean, ON	DELL, Jeffrey Orin Keswick, ON	HICKS, Roger Ivan Gatineau, QC	LUSCOMBE, Jadwiga Oakville, ON
ALBANESE, Michele Toronto, ON	DOW, Edwin Leonard Naples, FL	HILL, William Rockwood, ON	LYONS, Gerard Joseph Patrick Midland, ON
ALEXANDER, David Wayne Markham, ON	DUFFUS, Gordon Seth Hamilton, ON	HOGENBIRK, Thomas George Barrie, ON	MACKAY, Michael Alexander Cambridge, ON
ALLAN, William Robert Calgary, AB	DUNFORD, William Errington Toronto, ON	HOLLIS, Irvine Allen Williamsford, ON	MALEC, Henry Joseph Toronto, ON
AUSTIN, William Murray Thunder Bay, ON	ELZINGA, Winson Chatham, ON	JACKSON, William John Peterborough, ON	MCBURNEY, Peter William Toronto, ON
AUSTMAN, Helgi Lavergne Kincardine, ON	EULER, Donald James North Bay, ON	JANKEVICS, Juris Verners Midland, ON	MCGINN, Hugh Russell Uxbridge, ON
BARMAN, Mohandas Toronto, ON	FAN, Jian Hua Waterloo, ON	KAYE, Walter Vincent Mississauga, ON	MCKENNITT, David Henry Lions Head, ON
BENNETT, John Michael Brampton, ON	FORREST, Lynwood Alexander Kemble, ON	KING, David John Oakville, ON	MCREYNOLDS, William Peter Victoria, BC
BORSUK, Harvey Lyon Dollard Des Ormeaux, QC	GERHARD, Jason Ian London, ON	KING, Leonard Christopher Brantford, ON	MEEK, William Alexander Ottawa, ON
BRYANT, Ronald George London, ON	GIROUX, Aldege Jeremie Sudbury, ON	KONARSKI, Jerzy Brampton, ON	MEYERINK, Bernard London, ON
BURNHAM, Richard James Ridgeway, ON	GREY, James Gamble McKellar, ON	KOSHULAP, Peter J. Windsor, ON	MISA, Julio Treyes Brampton, ON
CAMPBELL, Donald Colin Newmarket, ON	GRUNO, Robert Stanley Victoria, BC	KUNOV, Hans Etobicoke, ON	MOISIN, Mihaela Lucia Hamilton, ON
CAMPITELLI, Giovanni North York, ON	HALL, Charles Denis Toronto, ON	KURYS, Jurij George Toronto, ON	MONDOUX, Ronald George Belleville, ON
CATTARELLO, Carlo James Haileybury, ON	HAMILTON, Dennis Meredith Inverary, ON	LAMONTAGNE, Yves Kingston, ON	MORGAN, Raymond John London, ON
CHAN, Kwok-Che Markham, ON	HAMILTON, Douglas Robert Kingston, ON	LARGE, Peter Geoffrey Scott Stella, ON	MOTA, Joaquin Morden, MB
CHILES, John Roger Thornhill, ON	HAO, Xiaoqiang Ottawa, ON	LECLERC, Benoit Joseph Richard Gloucester, ON	MOYSIUK, John Mississauga, ON
COLE, David Nathaniel Brampton, ON	HARTUNG, Sharon Irene Burnaby, BC	LIBURDI, Joseph Dundas, ON	NASR, Safouat Adib Toronto, ON
DAWSON, Arthur Ernest Limehouse, ON	HAUGHTON, Robert Noble Edward Ottawa, ON	LILLEY, Clifford Neil Minesing, ON	OTSASON, Juri North York, ON
DE KAT, Berend Cornelis Orillia, ON		LINSEMAN, Kenneth George Kingston, ON	OVERTON, Roy Point Edward, ON

PANTON, David John
Windsor, ON

PAPPIN, Jeffrey Cecil
North Gower, ON

POLKINGHORNE, Terry William
Sudbury, ON

RADAKOVIC, Mirosava
London, ON

RATAJ, Jan
Welland, ON

REINDERS, Frederik Jan
Carlisle, ON

RICH, David Thomas John
Brantford, ON

RODRIGUEZ, Emilio Gallego
Vero Beach, FL

ROSEBOROUGH, Angus Gordon
Port Elgin, ON

ROSIEN, James Charles
Lanark, ON

RUBIN, Bernard
Toronto, ON

SAVIDES, Paris
North York, ON

SCHAUB, Uwe Walter
Dundas, ON

SCHRIBER, Ronald Richard Peter
Etobicoke, ON

SENA, Pasquale Pat
Etobicoke, ON

SERGEANT, Gregory Lynn
Manotick, ON

SEYCHUK, John Laurence
Toronto, ON

SHAH, Vinaychandra Karsondas
Ottawa, ON

SHANG, Kai Lung
Mississauga, ON

SHATFORD, David Winton
Alliston, ON

SMITH, John Joseph
Markham, ON

SMITH, Lorne Calvin
Guelph, ON

STANDEN, Neil Mcqueen
Dollard Des Ormeaux, QC

STEELE, Keith Joseph
Burlington, ON

SULLIVAN, Richard Arthur
Florence, OR

SUSSMAN, Erwin
North York, ON

SUURMANN, Sigismund
Scarborough, ON

TAYLOR, David John
Ancaster, ON

TERP, Erik Victor
North York, ON

**THOMSON, Douglas
Robert Peter**
Nepean, ON

VASANTHAKUMAR, Thambirajah
Unionville, ON

VELUPPILLAI, Nantheeswarar
Scarborough, ON

VINCELLI, Pasquale
Cornwall, ON

VON KRAUSE, Ernst Holger
London, ON

VRKLJAN, Bozidar
Dundas, ON

WATSON, Andrew Philip Bezold
Whitby, ON

WILLIAMS, Dennis Philip
Orleans, ON

WOLSTENCROFT, Linda Renee
Calgary, AB

WOWK, Peter John
Toronto, ON

XU, Pei-Cheng
Mississauga, ON

YANG, Raymond Hua-Hsiung
Waterloo, ON

YOUSEF, Girges Malak Mekhail
North York, ON

A PINCH POINT IN THE PIPELINE

Engineering's path to inclusion starts with empowering equity-seeking students in high school.

By Michelle Liu, MASC, JD, P.Eng., LEED-GA

The statistics are nothing new: In 2019 only 14 per cent of licensed engineers in Canada were female compared to 41.2 per cent in the legal profession and 42.7 per cent in the medical profession. The lack of female engineers provides a glimpse into the profession's equity, diversity and inclusion (EDI) shortcomings, including that the profession has historically only collected sex and not gender data.

While engineering regulators are working to increase female representation with its 30 by 30 goal, few initiatives and policies exist to protect or empower racialized, disabled, neurodivergent and 2SLGBTQ+ persons, persons seeking equity based on other protected grounds and persons at the intersection of various marginalized identities. The initiatives and conversations in engineering claiming to be about "gender" rarely acknowledge the violence facing transgender, non-binary, gender fluid and gender non-conforming persons.

The profession must work to bring the percentage of females up to par with medicine and law, but it must also be attentive to the need to attract members of other identities. Most importantly, all dimensions of the profession must go beyond diversity to create equitable policies, procedures and spaces that enable equity-seeking persons who do come to engineering to feel included and empowered.

THE ROOT OF THE PROBLEM

It starts well before university. A 2018 Ontario Network of Women in Engineering (ONWiE) study found that only 15 per cent of female students who complete Grade 10 academic science in Ontario enroll in Grade 12 physics, while for male students the statistic doubles to 30 per cent. (Note that the data is again only disaggregated by sex, underscoring that the lack of data based on other protected grounds is a crosscutting issue.)

Grade 12 university-track physics is a prerequisite for all accredited undergraduate programs that meet the academic requirement for licensure with provincial and territorial engineering regulators. All Ontario engineering schools also require Ontario high school applicants to have taken university-track advanced functions, calculus and vectors, chemistry, English and one more 4U/M course. Schools in other provinces and territories have similar requirements, and the requirements vary for international students but typically include physics.

High school physics is a particular challenge, as it is a prerequisite for very few undergraduate programs besides engineering. The ONWiE study found that 66 per cent of Grade 12 physics students were male in Ontario in 2016 and that female students were not socialized to consider enrolling in physics—with less encouragement

from their parents and guidance counsellors—and that this may be a contributing factor to low female engineering numbers.

It would be interesting to know whether racialized, disabled, neurodivergent and 2SLGBTQ+ students and other equity-seeking students are generally socialized out of considering enrolling in physics. Are their parents and guidance counsellors telling them about engineering? What about students at the intersection of various equity-seeking identities and facing compounding marginalization? These questions are difficult to answer using data because no such data exist.

THE PROBLEM WITH THE PHYSICS PREREQUISITE

One way to form a hypothesis is by extrapolating from the experience of female youths. If parents and guidance counsellors are not earmarking female students as potential engineering applicants, they are unlikely to do so for racialized, disabled, neurodivergent, low-income and 2SLGBTQ+ students and students belonging to various underrepresented groups in engineering.

Under this hypothesis, most students who did not receive encouragement or advice to take physics in Grade 11 and to consider applying to engineering are unlikely to become qualified applicants in Grade 12. Equity-seeking students who decide on their own to cast a wider application net in Grade 12 would not be able to include engineering programs on their list unless they happened to have taken Grade 11 university-track physics and are willing to include Grade 12 physics in their timetable.

For most students at this crossroad, taking on a course that many perceive as the most difficult of the three science subjects just so they can add engineering to their basket as a last-minute "maybe" is not worth the risk of decreasing their grade average or taking away from part-time employment.

Applying to engineering is a relatively long-term plan that students must know to put into motion as early as when choosing between academic science and applied science in Grades 9 and 10. Even more onerous is the need to be aware of the physics prerequisite when selecting courses in Grades 11 and 12.

EMPOWERING EQUITY-SEEKING STUDENTS

The system is highly unlikely to encourage equity-seeking youths to take physics and apply to engineering if the system is failing to even perceive female students of privileged identities as future engineering applicants. In this sense, physics as a prerequisite may be extinguishing the prospect of capturing more equity-seeking students—along with female students—in the pool of engineering applicants.

One program from which to draw inspiration may be the University of Manitoba's Engineering Access Program (ENGAP), which aims to increase the number of Indigenous persons in engineering in part by allowing the waiver of certain high school prerequisite courses, including Grade 12 physics, at the admission stage while ensuring students still develop the competencies to graduate from one of the school's accredited engineering programs. ENGAP successfully graduated 95 Indigenous engineering students between 1985 and 2014, a number few other institutions with accredited engineering programs have been able to match. [e](#)

Michelle Liu, MASC, JD, P.Eng., LEED-GA (she/they), is an Ottawa-based, queer, racialized and non-binary civil engineer, soon-to-be lawyer, PEO councillor and PhD candidate.

COUNCIL APPROVES PEAK POLICY CHANGE

By Nicole Axworthy

559TH MEETING, SEPTEMBER 22, 2023

At its September meeting, Council unanimously approved a policy change for PEO's mandatory continuing professional development (CPD) program, PEAK. Specifically, Council approved exempting all licence holders who are on fee remission from all annual CPD requirements, effective January 2024.

The mandatory PEAK program was implemented on January 1, 2023. Fee remission licence holders are currently required to complete the first two PEAK requirements (Practice Evaluation and Professional Practice Module) but do not have to complete an assigned number of CPD hours or submit an annual CPD activity report.

The policy change will automatically exempt all 13,000 fee remission enrollees—97 per cent of whom are retired—from the entire PEAK program starting in 2024.

Fee remission, which results in a 75 per cent reduction in annual licence fees, is currently available to licence holders who are not practising. When they apply for the fee reduction, they must sign a declaration that they are not practising on a temporary (because of unemployment, ill health, or parental/educational leave) or permanent (because they are retired from practice) basis.

Since the mandatory PEAK program's launch, retired licence holders have expressed concern to PEO about their necessity to participate in PEAK, given that they don't practise engineering. The goal of the mandatory PEAK program is to help ensure licence holders practise competently and ethically. In turn, licence holders demonstrate their commitment to continually improving their engineering practice.

Staff believe there is a low risk to public safety if those enrolled in PEO's fee remission program do not participate in PEAK because they are already prohibited from practising while on fee remission. Additionally, exempting retired engineers from mandatory PEAK would reduce the potential that they might resign because of this requirement.

Most other Canadian jurisdictions do not require non-practising retirees to complete CPD requirements. British Columbia (BC) only added this exemption last year based on the belief that requiring CPD for non-practising registrants was outside their mandate to regulate the practice of professional engineering. Both BC and Saskatchewan exempt retirees over 65 but require retirees under 65 to specifically request a CPD exemption. Many other jurisdictions also exempt registrants with the equivalent of fee remission. However,

THE POLICY CHANGE WILL AUTOMATICALLY EXEMPT ALL 13,000 FEE REMISSION ENROLLEES—97 PER CENT OF WHOM ARE RETIRED—FROM THE ENTIRE PEAK PROGRAM STARTING IN 2024.

some only offer reduced CPD requirements for these registrants or require a specific request for a CPD exemption.

With PEAK's new policy change approved, fee remission licence holders will be notified of the changes prior to the exemption start date of January 1, 2024. Additionally, the motion noted that staff will monitor the impact of the fee remission exemption in 2024 and beyond.

HYBRID 2024 AGM

Council approved hosting PEO's 2024 Annual General Meeting (AGM) in a hybrid format. At its September meeting, Council considered a motion that proposed three options for conducting the 2024 AGM, including staff's proposal to hold the event in a virtual format because of certain benefits, including lower cost and increased attendance and accessibility.

After considering all three options (in person, hybrid and virtual), a vote to hold and endorse a hybrid format of the AGM passed. A hybrid event format will allow for in-person networking as well as participation from people who are not able to be there in person. It will also allow voting capability for both virtual and in-person attendees and the ability to have both virtual and in-person attendees ask questions.

Up until 2019, AGMs at PEO were held in-person and were accompanied by other events such as the Volunteer Leadership Conference and the Order of Honour awards. This forum provided the benefit of in-person discussions and networking among licence holders and councillors. However, it also meant a relatively high cost and venue limitations regarding attendance.

In March 2020, public health restrictions curtailed in-person gatherings of more than a handful of people, requiring that year's AGM in May to be held in a listen-only virtual format in which attendees could submit written questions or comments in real time. PEO has held virtual AGMs since then.

In spring 2022 as public health measures eased, PEO began to resume some Council and committee meetings in a hybrid format, where some participants are in-person and some are virtual, and this practice has continued to date.

Earlier this year, staff conducted an environmental scan by requesting information from other Canadian engineering regulators and other Ontario regulatory bodies regarding their AGMs. In August, the Governance and Nominating Committee reviewed the results of the environmental scan as well as eight years of historical data and other information related to AGMs conducted both in-person and virtually.

The committee requested that staff research costs related to the hybrid option as a factor to consider when deciding on the format of the 2024 AGM. Based on data from PEO's previous AGMs, in-person meetings were in the range of 5.5 to 6.8 times more expensive than virtual meetings; additionally, virtual meetings garnered twice the attendance of those held in-person.

Given that the event will now be hybrid, it is estimated that the in-person event cost will increase to include additional audio-visual and livestream equipment capabilities for virtual attendees.

TRIBUNAL APPOINTMENTS

At its September meeting, Council approved a motion to appoint members to both the Discipline Committee and the Registration Committee and confirmed approval for a recommendation of additional members for appointment by the province, as listed in Appendix C of the motion to Council.

CONSIDERING PARALLEL EXPERIENCE REQUIREMENTS

Council passed a motion that will allow PEO to consider parallel experience requirements to the competency-based assessment (CBA) portion of PEO's licensing application process, including a consideration of reducing the four-year experience requirement.

The motion asked that the Regulatory Policy and Legislation Committee bring to Council at its November 2023 meeting a plan and timeline for involving Experience Requirements Committee experts to consider introducing an apprentice/intern pathway to engineering experience as an alternative to CBA and to also consider reducing the four-year experience requirement for all experience pathways to licensure.

Earlier this year, PEO implemented changes to its licensing process to comply with new requirements under the *Fair Access to Regulated Professions and Compulsory Trades Act* (FARPACTA) within a specified timeframe. This included introducing CBA to assess engineering work experience and eliminating the one year of Canadian experience requirement, which was seen as a barrier to licensure for international applicants.

The motion notes that PEO's previous apprenticeship/intern approach to engineering experience was not considered while implementing FARPACTA-related changes. "Given the very very long successful, public protecting history of the apprentice/intern approach to engineering experience, it is reasonable to now consider what value there may be to re-introduce an apprentice/intern pathway to fulfilling engineering experience requirements but now in parallel to CBA," the motion says.

Additionally, the motion notes that it might be time to reconsider the four-year engineering experience requirement, which was introduced in the late 1990s. "[It was] supported by various promises including a promise of intermobility with US state regulators," the motions says. "Given this and possibly other promises have not materialized, there may be arguments for returning to a two-year apprentice-based experience requirement, or some other timeframe other than four years."

DEFERRAL OF MOTIONS

Council's September meeting ran later than scheduled, so a motion was approved to defer the agenda items in sections 7 and 8, except items 8.3 and 8.4(a), to the next Council meeting. **e**

MINUTES OF THE 101ST ANNUAL BUSINESS MEETING

SATURDAY, APRIL 29, 2023
PRESIDENT AND CHAIR: NICK COLUCCI, P.ENG., FEC

These minutes are prepared to align with PEO's By-Law No. 1, Section 15(7): "The record of all Council and committee meetings shall include only enough detail to summarize discussions and record motions and decisions made as a result of those discussions."

The 101st Annual General Meeting (AGM) of Professional Engineers Ontario (PEO) was held via videoconference on Saturday, April 29, 2023.

President Colucci called the meeting to order and welcomed PEO licence holders with a special welcome to the over 4500 new licensees joining PEO over the past year; engineering interns, students and employers; stakeholders; members of the public; colleagues in the engineering community; PEO staff; distinguished guests; and friends.

President Colucci stated that PEO recognizes its work takes place on traditional Indigenous territories across the province, acknowledging that there are 46 treaties and other agreements that cover the territory now called Ontario. He further stated that we are thankful to be able to work and live in these territories; and we are thankful to the First Nations, Metis and Inuit people who have cared for these territories since time immemorial and who continue to contribute to the strength of Ontario and to all communities across the province.

President Colucci then welcomed Ontario's attorney general, The Honourable Doug Downey, via pre-recorded greetings.

In his message, Downey expressed his gratitude to all those attending the AGM online and discussed the important work of Ontario engineers in building the province and its economy. He stated that the priority of the Ministry of the Attorney General (MAG) is using new and existing technology to provide access to justice and breaking down longstanding barriers in the system. He noted that engineers are responsible for making transformations as they are often relied on for innovation on the frontlines across various sectors. He stated that the province of Ontario relies on the expertise, experience and partnership of engineers to continue to build Ontario, emphasizing the importance of PEO's role as a regulatory body for engineers in the province. He stated that MAG can best support PEO with maintaining the highest standards for knowledge and skills in the profession.

Downey thanked President Colucci for his tenure and congratulated incoming president Roydon Fraser, PhD, P.Eng., FEC, and the new Council. He also welcomed Jennifer Quaglietta, MBA, P.Eng., ICD.D, as she assumed her new role as PEO's CEO/registrar. Downey informed that recent changes were made to the regulations under the *Professional Engineers Act*. The changes include clarifying the use of seal requirements to address risks of public harm and lack of compliance, and mandatory continuing education and professional development for all licence holders. Downey noted that he is pleased with the initial results after the implementation of the Practice Evaluation and Knowledge (PEAK) program, as these changes improve the profession while enhancing public trust in engineering. He further stated that in response to the concerns of the public regarding time and process, the government put forward the *Working for Workers Act*, which eliminates the requirement for Canadian experience and establishes time limits for licence application processing. He further stated that these changes help strengthen the industry and addresses barriers. Downey applauded the Council-approved Anti-Racism and Equity Code and commented that it is a significant achievement, and he is looking forward to seeing how the code is integrated into daily work at PEO. He further acknowledged the important steps PEO has taken to integrate government policies through focusing on strategic priorities. Lastly, he ensured continued MAG support to PEO in building the economy and Ontario.

On behalf of PEO and Council, President Colucci thanked Downey for joining PEO's AGM. He then welcomed special guests from Engineers Canada and its constituent associations as well as invited organizations in Ontario's engineering community and allied professions.

INTRODUCTION OF COUNCIL

President Colucci introduced the members of the 2022–2023 PEO Council:

President Nick Colucci; President-elect Roydon Fraser; Past President Christian Bellini, P.Eng., FEC; Elected Vice President Greg Wowchuk, P.Eng., Appointed Vice President and Lieutenant Governor-in-Council Appointee Lorne Cutler, MBA, P.Eng.; Councillors-at-Large Vaj Banday, P.Eng., MSEE, MSCE, PE (Michigan), FEC, Chantal Chiddle, P.Eng., FEC, and Leila Notash, PhD, P.Eng., FEC; Eastern Region Councillors Randy Walker, P.Eng., FEC, and Tim Kirkby, P.Eng., FEC; East Central Region Councillors Christopher Chahine, P.Eng., and David Kiguel P.Eng., FEC; Northern Region Councillors Luc Roberge, P.Eng., FEC, and Dana Montgomery P.Eng.; Western Region Councillors Susan MacFarlane, MSc, PhD, P.Eng., and Vicki Hilborn, P.Eng.; West Central Region Councillors Jim Chisholm, MEng, P.Eng., FEC, and Pappur Shankar P.Eng., FEC; Lieutenant Governor-in-Council Appointees Arjan Arenja, MBA, P.Eng., Robert Brunet, MEng, P.Eng. (who served until January 2023), Andy Dryland, C.E.T., Paul Mandel, MBA, CPA, CA, CBV, CFF, George Nikolov, P.Eng., Scott Schelske, P.Eng., FEC, Sherlock Sung and Uditha Senaratne, P.Eng.

President Colucci thanked Council for all their hard work and service.

AGM MINUTES

President Colucci also introduced PEO staff: Jennifer Quaglietta, CEO/registrar; Meg Feres, supervisor, Council operations; Chetan Mehta, director, finance; and Parliamentarian Lori Lukinuk.

IN MEMORIAM

President Colucci asked that all those present observe a moment of silence in remembrance of those PEO licence holders who passed away in 2022.

ORDER OF BUSINESS

President Colucci reviewed the order of business and housekeeping items. A test of the voting system was conducted.

ADOPTION OF MINUTES

President Colucci referred licence holders to the minutes of the 2022 AGM. It was moved by Past President Christian Bellini and seconded by Councillor Chantal Chiddle that the minutes of the 2022 AGM, as published in the November/December 2022 issue of *Engineering Dimensions* and as distributed at the meeting, be adopted as presented.

Motion carried

FINANCIAL REPORT

President Colucci invited Councillor Lorne Cutler, chair of the 2022–2023 Audit and Finance Committee, to provide a report on PEO's audited financial statements.

Cutler reviewed the financial information, noting that the 2022 audited financial statements were approved by Council at the April 2023 meeting. He stated that these statements are on the PEO AGM webpage and would be published in the May/June issue of *Engineering Dimensions*.

Cutler presented a graph showing a five-year trend of revenues, expenses and net income. He noted that in 2018, PEO had a modest surplus of \$123,000 due to aggressive cost-cutting measures. In 2019, there was a \$2.9 million surplus as the new fee schedule came into effect. In 2020, there was a surplus of \$7.9 million due to the 2019 fee increase; COVID-19 pandemic restrictions, which led to most in-person events and meetings being moved online; and a drop in expenditures, as several 2020 initiatives were deferred to 2021. In 2021, there was a \$6.5 million surplus, with Cutler noting that, although most COVID restrictions remained in place throughout 2021 and resulted in most activities remaining online, membership was not as negatively impacted by the pandemic as expected, leading to a slightly lower surplus of \$6.5 million in comparison to the surplus of \$7.9 million in 2020.

In 2022, with the relaxation of most COVID-related restrictions, staff and volunteers were able to commence work on various initiatives and projects that had been either delayed or deferred during the pandemic. Due to this, there was an increase in expenses resulting in a lower surplus of \$2.1 million in comparison to a surplus of \$6.5 million in 2021.

A slide was presented showing the key financial highlights as of December 31, 2022:

- Revenues of \$32.7 million (vs \$32.5 million in 2021);
- Expenses of \$30.6 million (vs \$26 million in 2021);
- A surplus or net excess of revenues over expenses of \$2.1 million (vs \$6.5 million in 2021);
- \$34.7 million in cash and marketable securities (vs \$31.2 million in 2021); and
- The lowest P.Eng. fees in Canada.

Cutler stated that PEO's finances are healthy and are expected to remain so for the foreseeable future.

There were no questions brought up at this time.

APPOINTMENT OF AUDITORS

It was moved by Lorne Cutler and seconded by Randy Walker that the firm of Deloitte LLP, chartered accountants, be appointed as PEO's auditors for the association for the 2023 fiscal year or until their successor is appointed.

Motion carried

CEO/REGISTRAR'S REPORT

CEO/Registrar Quaglietta extended a warm welcome to everyone and noted that this marks her first AGM at PEO. She opened her speech by acknowledging the work of her predecessor, Johnny Zuccon, P.Eng., FEC, and his leadership on countless PEO initiatives, including many activities of the past year. She stated that Zuccon had a remarkable career at PEO, culminating in a four-year term as CEO/registrar as he undertook ambitious transformation at the 100-year-old regulator. These included an external expert review of PEO's performance as the provincial engineering regulator, and adopting the high-level action plan, activity filter and two-year governance renewal process.

Quaglietta stated that last year PEO reached a major milestone when it celebrated its 100th anniversary of protecting and serving the public interest. To commemorate the event, a 16-page spread was published in *Engineering Dimensions* highlighting historical milestones and achievements of the evolution of PEO that reflects how Canadian society has changed over the past years. Quaglietta further added that the centennial was one of the first opportunities to host an in-person celebration in over two years. The event took place on May 13, 2022, and included a networking reception and dinner with 130 guests in attendance, including past and current Council members, chapter chairs and representatives of other regulatory and advocacy bodies. Speeches featured a keynote address from former CBC journalist and anchor Peter Mansbridge, followed by speeches by then-CEO/Registrar Johnny Zuccon and President Nick Colucci.

Quaglietta provided an update on the Council-approved 2023–2025 Strategic Plan. In June 2022, Council approved a bold and transformative strategic plan that was launched this year and will extend to 2025. She stated that she would like to call this plan the North Star—a guide to help PEO continue to modernize as an effective regulator. She further added that the transformation process is an ongoing, organic and evolving process, and the plan itself builds on the previous plan as it was designed to help address the recommendations stemming from the 2019 external review. Quaglietta provided the following updates on the strategic plan:

Mandatory CPD Becomes Reality

Quaglietta mentioned that an important recommendation from the 2019 external review was to establish mandatory continuing professional development (CPD) that is proportionate, outcome focused and achievable by licensed engineers. Moreover, it is PEO's responsibility to demonstrate to stakeholders that licence holders maintain and build on their skillset. In 2017, PEO introduced PEAK as a voluntary CPD program, and by 2021 Council agreed to move forward in converting the PEAK pilot to a mandatory CPD program. This was the first step towards introducing a change to section 51.2 of Regulation 941 under the *Professional Engineers Act* (PEA), which was approved by the provincial cabinet last April. With that amendment, PEO joins all other provincial engineering regulators in having a mandatory CPD program that aligns with the commitment to protect the public interest.

Quaglietta added that the first two months of 2023 saw almost three quarters of licence holders begin the first two required PEAK elements, which is indicative of great success. Furthermore, last spring, a public survey was solicited and over 8800 responses were received. Over three quarters of the participants were supportive of a custom approach to PEAK, while two thirds of the respondents were in favour of the inclusion of non-verifiable activities. Based on the feedback received, both ideas were incorporated as key features of the new program.

Licensing Changes Mandated Under FARPACTA

Quaglietta noted that PEO, like many other regulators in Ontario, is accountable to the Office of the Fairness Commissioner, which administers the *Fair Access to Regulated Professions and Compulsory Trades Act* (FARPACTA). With the introduction of new FARPACTA requirements that come into effect on July 1, 2023, PEO will be required to make a licensing decision within six months for 90 per cent of internationally trained applicants and acknowledge receipt of all applications within 10 days. Finally, the most notable change under the current model will be the removal of the Canadian experience requirement, effective December 2, 2023.

Quaglietta further stated that with the oversight of Council, the Regulatory Policy and Legislation Committee (RPLC) throughout last year worked to develop a streamlined FARPACTA-compliant licensing process that emulates PEO's existing standards and allows PEO to more quickly assess candidates' suitability to practise in Ontario while maintaining the educational component for our licensing requirements. PEO will continuously and actively explore viable solutions to help recent graduates navigate their experience requirements for licensure as the new model will meet a key pillar of the 2023–2025 Strategic Plan, which aims to improve the licensing process without compromising public safety.

Improving PEO's Digital Capabilities and Performance

Quaglietta noted that PEO continues its journey to modernize its processes and highlighted two important updates focused on digital transformation. The first is the newly introduced online P.Eng. application system, which will be active and accessible by July 2023. This will allow applicants to submit their application electronically by uploading all their documentation instead of submitting it via email. The second digital transformation by PEO was its Information Discovery and Digitization Capability Project, initiated in 2021 to digitize 24,000 active paper P.Eng. licence files to allow PEO's staff more efficient access to application documents. This large undertaking is nearing completion.

New and Updated Guidelines

Quaglietta mentioned that the PEA gives Council the authority to establish, develop and maintain standards of practice for professional engineers. As a result, PEO is constantly revising and reviewing its practice standards and guidelines, and in 2022 PEO staff worked diligently to develop and revise the following four guidelines:

- 1) A new guideline to support engineers providing services for the demolition of buildings and other structures;
- 2) Another new guideline about pre-start health and safety, which brings an undertaking to the level of diligence methods and reporting acceptable to PEO for this type of work;
- 3) The revised guideline concerning the use of the engineer's seal, which reflects changes to the regulation amendments that took effect last July; and
- 4) Another revised guideline related to temporary works for construction projects, which brings attention to the basic requirements, procedures and duties necessary to achieve proper design and installation or construction of such projects.

Equity, Diversity and Inclusion at PEO

Quaglietta stated that she is delighted to be supporting the work stemming from the 30 by 30 Task Force, which began in 2018 in alignment with Engineers Canada's goal of ensuring that 30 per cent of newly licensed engineers are women by the year 2030. However, she indicated that the percentage of women applying for PEO licensure is still significantly lower than men, noting that in 2021 approximately 21 per cent of licence recipients were women. Quaglietta noted that PEO is committed to ensuring PEO's licensed engineers reflect Ontario's population and society and that Council has made a 10-year commitment to track and measure the progress of women applying for successful licensure.

Quaglietta noted that there is an ongoing independent gender audit of PEO's existing licensing process with participation from experts from the University of Toronto's Rotman School of Management. The review of the 100,000 applications for licensure revealed that women are as successful as men at completing the academic component of PEO's licensing requirement, but women are not necessarily completing the experience component at the same rate as men. She emphasized the research is still in its preliminary stages; therefore, it is too early to draw any final conclusions. Staff will continue to monitor the new licensing application model so it adequately reflects the society PEO aims to serve.

PRESIDENT COLUCCI'S OUTGOING REPORT

President Colucci began by sharing his thoughts on the business conducted by Council over the 2022–2023 term. He reflected on the progress PEO has made over the past year and remarked on the events that celebrated 100

years regulating the engineering profession in Ontario. He stated that the anniversary served as both a recommitment to our public-protection mandate as a modern regulator and a reminder of the great privilege we have in self-regulation. President Colucci acknowledged his privilege to have served as PEO's 103rd president over the milestone year. He further acknowledged that it is paramount that the trust of Ontarians is maintained through accountable, fair, equitable and transparent regulatory processes, all developed through a public-interest lens. To this end, in the past year Council had made key decisions in support of this trust, both to the public and the engineers PEO regulates.

2023–2025 Strategic Planning

President Colucci stated that a two-day strategic planning workshop held in May 2022 laid the groundwork for PEO's strategic plan for 2023–2025. The workshop was informed by the feedback gathered by stakeholder consultations, a licence holder survey, a public focus group, an internal capacity analysis and a regulatory environmental scan. These were conducted to identify the capacity, gaps and opportunities that were considered in the strategic planning process. President Colucci announced that at the workshop, PEO's new mission statement was developed: "To regulate the practice of professional engineering in Ontario to safeguard life, health, property, economic interests, the public welfare and the environment." The new goals include:

- Improving PEO's licensing process, without compromising public safety;
- Optimizing organizational performance;
- Implementing a continuous governance improvement program; and
- Refreshing PEO's vision to ensure all stakeholders see relevance and value in PEO.

President Colucci also noted that these goals were formally adopted by Council at its June meeting.

Data Protection Policy

President Colucci noted that in September, PEO adopted a new data-protection policy to ensure the data privacy of licence holders and other stakeholders is maintained and strengthened.

Update on Licensure Improvement Goals

President Colucci stated that in November Council made important decisions supporting PEO's licensure improvement goals by recognizing that a bachelor's degree in an engineering program in Engineers Canada's International Institutions and Degrees Database, subject to completing a confirmatory examination program, is equivalent to a bachelor's degree in a Canadian engineering program that is accredited to Council's satisfaction.

Secondly, Council also approved the use of a competency-based assessment model to confirm that a licence applicant has sufficient experience to practise engineering. Furthermore, in March, Council directed staff to begin work with MAG on amending Regulation 941 to remove the Canadian experience requirement for licensure. Further studies will be initiated to explore and address any unintended consequences of this change. President Colucci stated that the changes, combined with a shift to "front-end" academic and experience requirements for licensure, will also help PEO comply with amendments to FARPACTA.

Governance Roadmap

President Colucci informed that in the February Council meeting, as part of the Phase 4 risk assessment process of the Governance Roadmap, several committees and subcommittees that were neither governance nor regulatory were stood down. They included the:

- Advisory Committee on Volunteers;
- Education Committee and Education Conference Planning Subcommittee;
- Equity and Diversity Committee;
- External Honours Subcommittee;
- Gala Advisory Committee;
- PEO-OAA Joint Liaison Committee;
- PEO-OSPE Joint Relations Committee; and
- Volunteer Leadership Conference Planning Committee.

On behalf of Council, President Colucci thanked the committee members for their volunteer service and contributions to the profession. He also informed that a certificate of appreciation was sent to the volunteers with a note of personal thanks from the president for their dedicated service.

In addition, President Colucci informed that in the Governance Roadmap risk assessment process, decisions were made around chapters' activities in the "neither" category, including approving to support activities such as AGMs, technical seminars, networking events and scholarships. Council also approved supporting, with modifications, chapter activities such as licensure certificate presentations, education outreach, the Licensure Assistance Program, GLP activities and support of community organizations. President Colucci concluded his update on the topic by adding that Council also approved the Governance Manual, which integrates charters, protocols and other directions approved by Council as part of the Governance Roadmap.

PEAK Update

President Colucci noted the implementation of PEO's mandatory CPD program, PEAK, which came into effect on January 1, 2023. The program protects the public by helping to ensure licence holders practise competently and ethically. He informed that annual compliance audits and non-compliance sanctions will be introduced in 2024.

CEO/Registrar Update

President Colucci stated that in December, Council appointed a new CEO/registrar, Jennifer Quaglietta, who took charge in January 2023. She has worked in leadership positions in the public and private sectors, including at the Healthcare Insurance Reciprocal of Canada, North York General Hospital and Ministry of Health and Long-term Care, among others.

President Colucci extended thanks to Quaglietta and acknowledged past CEO/Registrar Johnny Zuccon's contribution to the executive leadership team and

the entire PEO staff. President Colucci noted that Zuccon led PEO during its most ambitious change project in its 100-year history. He further mentioned that beginning with the 2019 external regulatory performance review, Zuccon guided PEO through its transformation to become a modern regulator. The president acknowledged that Zuccon led PEO to:

- Build and roll out a mandatory CPD program;
- Begin the process of simplifying and streamlining PEO's licensing system;
- Overhaul PEO's organizational structure so the objectives are met within capacity; and
- Improve the ability to regulate using "right-touch" regulation principles and adopt an outward-looking approach to guide decisions that impact PEO's public-interest mandate.

President Colucci thanked Zuccon on behalf of Council for his years of valuable and enthusiastic commitment to PEO. He concluded his outgoing president's update by thanking everyone who placed their trust in him to lead Council this year and to the outgoing Council for their hard work over the term. He welcomed and wished incoming President Roydon Fraser all the best during his term as he leads Council into the second century; and he noted he is looking forward to working with Council to help usher in a new phase in PEO's history.

QUESTIONS TO COUNCIL

Licence holders were invited to submit written questions. President Colucci, the CEO/registrar or the director of finance responded to several questions related to topics such as PEAK/mandatory CPD, the impact of FARPACTA and the new licensing application process, EDI and the 30 by 30 initiative, and staffing and chapter costs. It was noted that the responses to these questions and others not addressed during this meeting due to time constraints will be posted on the AGM page of PEO's website.

President Colucci recalled the meeting to order following a short break.

LICENCE HOLDER SUBMISSIONS

President Colucci stated that each year, in accordance with section 17 of By-Law No. 1, submissions from licence holders are welcomed as a way for them to express their views on matters relating to PEO affairs. He advised that submissions were due at end of day on Wednesday, April 20, and a guidance document to assist licence holders in making submissions was posted on PEO's website.

President Colucci advised that one submission was received, and the complete submission was made available on PEO's website.

SUBMISSION #1—COVID-19 Misinformation in PEO Council Agenda

A pre-recorded message from the mover, James Andrew Smith P.Eng., was played. He stated that in the agenda for the March 2023 PEO Council meeting, Gregory Wowchuk included a link to a presentation document containing factual errors and conspiracy theories about vaccinations and COVID-19. Perhaps Wowchuk was unaware of investigations by the College of Physicians and Surgeons of Ontario related to members of the Canadian Covid Care Alliance and associated organizations. It was noted that the submission aims to bring these possible oversights to the attention of both Wowchuk and Council so that rectifying actions can be taken and to, hopefully, ensure that similar oversights do not happen in the future.

President Colucci commented that the motion in question was removed from the agenda, as staff was already working on updating the policy regarding entry to the workplace. He further noted that training resources are available to councillors, and successful completion is documented for the record.

The president called for a vote on the motion.

Moved by James Andrew Smith, P.Eng., and seconded by David Elfstrom, P.Eng. Be it resolved that,

1. The Council motion in question be formally retracted;
2. Council release a formal statement rejecting the inclusion of misinformation in its business;
3. Councillors be required to engage with governance education and/or obtain governance designations prior to participating in Council business; and
4. Future potential councillors receive communication prior to elections regarding desired qualifications and required duties and in the lead up to elections members should be notified in writing of candidate status with PEO (e.g. practising status, disciplinary history, etc.) and any potential conflict of interest.

Motion carried

PRESENTATION TO OUTGOING COUNCILLORS

President Colucci congratulated retiring licence holders of the 2022–2023 Council, who had worked diligently to move the profession forward. President Colucci expressed his personal appreciation to all for their collaboration, support and encouragement throughout the 2022–2023 year. He stated that it has been a pleasure serving as president and chair.

President Colucci advised that the outgoing councillors had received a certificate of appreciation in recognition of their service to the profession. He thanked and recognized the following outgoing members of Council: Christian Bellini, past president; Chantal Chiddle, councillor-a-large; Jim Chisholm, West Central Region councillor; Randy Walker, Eastern Region councillor; and Robert Brunet, lieutenant-governor-in-council appointee.

INSTALLATION OF NEW PRESIDENT

Past President Colucci administered the oath of office to Roydon Fraser as the 104th president for the 2023–2024 term and presented him with the chain of office.

PRESENTATION TO PAST PRESIDENT COLUCCI

President Fraser mentioned that at the March Council meeting a special presentation was made to Past President Colucci to acknowledge his just-completed term of office as PEO president. On behalf of Council, he thanked Past President Colucci and expressed sincere appreciation for all his work and efforts to both PEO and the profession and presented him with tokens of appreciation, including an amethyst inukshuk, a framed copper embossed art card, a certificate of appreciation, a past president's lapel pin and PEO's outgoing President's Award. Furthermore, a Lifetime PEO Membership Certificate will also be presented to the former president today.

CLOSING REMARKS BY PRESIDENT ROYDON FRASER

President Fraser provided the following remarks:

Reflecting on the past, President Fraser provided a brief description of how engineering rose to prominence because of the early Industrial Revolution being directly correlated with increases in economic activity and corresponding increases in standard of living, through the manipulations of energy and materials. In contrast, the modern Industrial Revolutions are less about energy and materials and more about information and its use. He stated that the shift to the importance of information started with computers in the Second Industrial Revolution, expanded to IT systems in the Third, culminating today with the Fourth Industrial Revolution being almost entirely about information.

In his remarks, President Fraser cautioned that the Industrial Revolutions were not solely beneficial; they also brought with them major concerns such as unprecedented environmental degradation, enablement of colonization and at times massive unemployment. He noted that one of the major concerns with the coming of artificial intelligence (AI) is how many tasks currently performed by humans will be made obsolete with the potential for massive unemployment due once again to an Industrial Revolution. These concerns are certainly challenging, as the regulated engineering profession has a major role to play with its mandate to protect the public interest. President Fraser stated that it is his contention that engineering regulators must be more proactive, more vigilantly outward focussed, with more market visibility, if they are to meet these challenges to the best of our ability and to the maximum benefit of society. He remarked that in reviewing the past and the Industrial Revolutions there are learnings to understand where regulatory bodies find themselves today in terms of current practices and relevance, and where the future may lead.

President Fraser commented on the present situation in Canada, stating that one finds governments taking a bigger interest in the regulated professions, generally because they are seen as imposing barriers to economic

activity, insufficiently addressing public safety concerns (or as restricting the supply of needed qualified personnel). He added that the FARPACTA legislation that applies to all regulated professions is a prime example of the government taking an active interest in addressing economic activity and fairness barriers by addressing the time barrier to licensure, requiring that 90 per cent of licensing decisions be made within six months of application for a P.Eng. licence.

President Fraser provided two recent legislative examples from other areas of Canada to outline the broader picture of what the future may hold for PEO and self-regulation. He encouraged everyone to ponder if government intervention in the self-regulation of engineering is the best path forward to protect public interest and to think about what PEO will need to be prepared for the future. He noted that to answer these questions, it is important to consider two sets of statistics and two government-related impacts on the profession from just this past year.

President Fraser stated that 92 per cent of current PEO applicants are confined to just eight traditional and closely related engineering disciplines, while a mere 8 per cent belong to the 22 other engineering disciplines recognized by PEO. He continued that only about one quarter of engineering graduates in Canada seek licensure, with Ontario's rate being significantly below the national average. He noted that the work of PEO's future vision will be to answer questions from the perspective of all relevant stakeholders; and that this work is about listening, understanding and providing a deliverable, a vision statement, that guides PEO into the future.

President Fraser moved on to explore the impact of PEO's mandatory PEAK program, which launched on January 1, 2023. He commented that if PEO did not implement mandatory CPD, it would likely be imposed by the government with PEO having little to no say in its structure, accompanied by the fear of unintended consequences.

He offered his observations on the mandatory PEAK program and the changes proposed to PEO's licensing process as imposed by the government.

In his closing remarks, President Fraser shared his personal vision of the future for PEO. He invited PEO to add "profession strengthening" to its current core functions of regulation and governance, which he states is well supported by the additional objects in the PEA. He added that a core function of profession strengthening would mean PEO Council would be encouraged to work with the Ontario Society of Professional Engineers (OSPE). He stated that PEO and OSPE should see value in stronger whistle-blower protection for professional engineers or see advantages to coordinating on the challenges of globalization and the licensing of entrepreneurs. He summed

up his remarks by acknowledging that there are certainly challenges facing the engineering profession, but engineers are also creative problem solvers. He reminded everyone that “Truth, Trust and Transparency” were the themes of Peter Mansbridge’s keynote address at PEO 100th anniversary celebration and that these words should not be forgotten while envisioning the future.

President Fraser noted that he is looking forward to a productive year working with fellow councillors and staff while interacting and working directly with PEO members and other stakeholders. In concluding his remarks, he said that he is honoured to be the 104th president of PEO and that he is grateful for this opportunity to guide the engineering profession into the future as we develop an aspirational, robust and realistic future vision for PEO that seeks relevance and value for the P.Eng. designation.

INTRODUCTION OF INCOMING MEMBERS OF COUNCIL

President Fraser introduced the 2023–2024 members of Council:

President Roydon Fraser; Past President Nick Colucci President-elect Gregory Wowchuk, P.Eng.; Vice President Christopher Chahine P.Eng.; Councillors-at-Large Vajahat Banday P.Eng., MSEE, MSCE, PE (Michigan), FEC; Leila Notash, PhD, P.Eng., FEC; and Glen Schjerning, P.Eng.; Eastern Region Councillors Tim Kirkby, P.Eng., FEC, and Michelle Liu, MSc, P.Eng.; East Central Region Councillors David Kiguel, P.Eng., FEC, and Nanda Lwin P.Eng., FEC; Northern Region Councillors Luc Roberge, P.Eng., FEC, and Dana Montgomery, P.Eng.; Western Region Councillors Vicki Hilborn, P.Eng., and Susan MacFarlane, MSc, PhD, P.Eng.; West Central Region Councillors Pappur Shankar, P.Eng., FEC, and Ravinder Singh Panesar, P.Eng., FEC; and Lieutenant Governor-in-Council Appointees Arjan Arenja, MBA, P.Eng., Lorne Cutler, MBA, P.Eng., Andy Dryland, C.E.T., Paul Mandel, MBA, CPA, CA, CBV, CFF, George Nikolov, P.Eng., Scott Schelske, P.Eng., FEC, Sherlock Sung and Uditha Senaratne, P.Eng.

There was a virtual round of applause to welcome the new councillors and directors.

CONCLUSION

President Fraser then declared the 101st AGM of the Association of Professional Engineers Ontario concluded.

Jennifer Quaglietta, MBA, P.Eng., ICD.D
CEO/Registrar

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Find the 2024 Council Elections Call for Candidates on page 20 of this issue. But hurry—you only have until November 24 to nominate yourself or a fellow engineer.

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