

## Demanding qualifications and competence

Ontario engineers put specialist certification on the agenda

By Karen Hawthorne

Today's climate of consumer scrutiny has sparked a demand for professional qualifications and competence. There is a growing interest in professions toward certification in addition to professional licensure. PEO is stepping up to the plate.

**D**octors have Fellowships with Royal Colleges that certify their competence in medical specialties beyond their MD. Lawyers go through a certification program to market themselves as specialists in a particular field of law. But in engineering, it's still one size fits all. Is this enough to adequately ensure public welfare in every area of practice, or to meet the public's expectations?

These are pivotal questions for PEO, the province's licensing body for engineers. In the wake of the Walkerton tragedy, concern about contaminated sites and their cleanup, and instances of deficient building permit applications, government and the public are beginning to ask that practitioners demonstrate their expertise for the particular job at hand.

Government is responding with new regulations that will require individuals doing particular work to prove their expertise through either government-set examinations or other qualification regimes established by their licensing bodies. In the case of professional engineers, opponents of certification beyond the P.Eng.

say that licensure via the *Professional Engineers Act* should be all the assurance the public needs, and a certification program would mean only more bureaucracy and higher costs for practitioners, which they'll have to pass on to consumers. They say certifications beyond the P.Eng. weaken the value of the licence and engineers are already bound by threat of disciplinary action and by their *Code of Ethics* not to practise outside their areas of expertise. Supporters of the concept, on the other hand, argue that additional demonstrations of expertise can only be marketable add-ons to their P.Eng. because they enhance accountability to the public.

"Basically, the government wants more accountability in certain areas," says Bernard Ennis, P.Eng., PEO's professional practice manager. "The only way to do that is certification. And the public is just demanding it. I get phone calls all the time asking if a certain engineer is capable of doing a particular thing, but I can only tell them about our *Code of Ethics* that says engineers can only do what they are competent in,

and can be disciplined if they practise outside their areas of competence and something goes wrong."

And the main drivers in this trend to legislate task-specific certifications? It appears that for the most part, governments are responding to events or long-simmering issues that have called into question whether the levels of expertise of those involved are adequate. Even before Walkerton but especially now governments want to be assured that if they outsource functions previously carried out by government employees, they can say with confidence that those given the legislated right to do the work are properly qualified.

### Better building

The Ontario Ministry of Municipal Affairs and Housing's Building Regulatory Reform Advisory Group (BRRAG) voiced concerns about the lengthy processes for building permit application, and delays in issuing permits resulting from the large number of errors in permit applications. BRRAG recommended that those involved with building permit applications be

required to demonstrate their knowledge of the Ontario Building Code. The ministry responded with Bill 124, now awaiting second reading in the spring session of the Legislature, to streamline the process.

If the changes to the *Building Code Act* in Bill 124 are implemented, compulsory professional liability insurance will be required for those involved in building code work. All practitioners, including architects, interior designers, contractors and construction superintendents, will be tested on their knowledge of the building code (see *Engineering Dimensions*, vol. 23, no.1, p. 26). Practitioners will bear the costs of the required testing. The required insurance will be job-specific so the professionals involved in the building design and construction—not the building owner—will be more accountable for any problems or complications down the road.

Because the regulations spelling out the detailed requirements of Bill 124 have yet to be written, PEO has told the ministry that it is prepared to administer the tests to the professional engineers who want to be certified and maintain the register of certified professional engineers on the ministry's behalf. It's hoped such cooperation will help to ensure that PEO is consulted as the details are developed.

"We're not assessing people to be engineers," says Bryan Kozman, the ministry's manager of building and development policy. "We're putting people through a qualification process to test their knowledge of the building code. PEO has a vital role to play here in making the transition from one system to the other."

Critics of Bill 124 and PEO's cooperation say that the government is over-regulating the industry. Professional engineers, they say, already know the building code and work in full compliance.

And in a perfect world, a professional engineer's seal on a drawing should demonstrate that the design was done in full compliance with the building code, says John Gamble, P.Eng., president of Consulting Engineers of Ontario (CEO). But if the public perceives that the work is not being done to its expectations, it's the public's prerogative to demand [specialist] certification," he says. "PEO needs to regulate to the public's expectation."

Right now, the Consulting Engineer designation is the only professional engineering specialty designation conferred by PEO. The designation is granted to professional engineers with at least five years of experience following conferral of their degree (as opposed to four years for licensing), whose primary business is providing independent professional engineering services and whose work in independent practice has been vouched for by their peers. Membership in CEO is restricted to those companies holding PEO Certificates of Authorization enabling them to offer or provide engineering services to the public and which also have designated Consulting Engineers in their employ.

### A partnership approach

*The Brownfields Statute Law Amendment Act* (Bill 56) of the Ministry of the

Environment (MOE) will require a "qualified person" (QP) to sign the record of site condition (RSC) for contaminated site assessment and remediation.

To ensure the necessary qualifications and accountability of QPs, PEO and the Association of Professional Geoscientists of Ontario (APGO) have proposed to MOE that they develop a recommended regime to identify and qualify as QPs individuals licensed as professional engineers and/or professional geoscientists. A joint PEO/APGO Brownfields Working Group has proposed that candidates for the QP:

- must be licensed professional engineers or professional geoscientists under the Professional Engineers and Professional Geoscientists acts;
- have an appropriate amount of relevant experience (yet to be defined); and

### The national scene

Practice specialization and certification of special qualifications is an issue facing the engineering profession across Canada. For instance:

- In Quebec, engineers working in contaminated site assessment and remediation must obtain additional certification to practise. In Ontario, the Ministry of the Environment (MOE) requires a "qualified person" (QP) to sign the record of site condition (RSC) under its Brownfields Statute Law Amendment Act, although the regulations to give effect to the act by defining a QP are still in the works. The engineering associations in Alberta and British Columbia are facing similar demand-side pressures from government and industry.
- Demand for assurances in addition to the P.Eng. is also on the rise in the construction industry. Ontario's Ministry of Municipal Affairs and Housing last year introduced Bill 124, an Act to improve public safety and to increase efficiency in building code enforcement, which will require those working in the industry to demonstrate knowledge of the Ontario Building Code. Meanwhile, an Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) bylaw amendment authorizing the association to establish the Structural Engineer of Record (SER) as a grade of membership was approved by members at APEGBC's last annual meeting, and has authority from the B.C. legislature. APEGBC has now drafted procedures for examinations and the qualification process and instituted a one-year pilot of the qualification process, aimed at those interested in applying immediately for the SER designation. APEGBC is recommending to municipal building officials in the province that the professional seal and stamp of a registered SER be required after January 1, 2007 for this scope of practice.
- Some of the smaller associations, the Northwest Territories and the Yukon for example, are strongly opposed to other levels of qualification in addition to licensing. There is a general concern everywhere about the additional work that would be involved in additional certifications, including establishing specialist boards of examiners, additional registers, and the processing of additional fees.
- The Canadian Council of Professional Engineers (CCPE) struck a task force in 2001 to study the issues of specialization and certification, for the purpose of developing national policies. CCPE's draft national policies were distributed to the provinces/territories in December for feedback. After consolidating Councillors' feedback on the drafts, which were discussed at Council's meeting on Feb. 28/Mar. 1, PEO submitted a response to CCPE that reflects the fact that PEO is looking to improve how it fulfills its regulatory mandate, including the possibility of specialization and additional certifications, if necessary. CCPE's national policy statements on specialization and certification are scheduled to go before the CCPE board for debate at the end of May.



- must provide a summary of work experience and qualifications that would have to be reviewed and found satisfactory.

MOE representatives have indicated support in principle for the proposed QP role and criteria developed by the joint working group, including that there be a supplemental designation beyond the P.Eng./P.Geo. licence. MOE has indicated that the QP regime must provide quality assurance, quality control, safeguards for environmental protection and an element of continuous improvement.

Other areas in which the government has indicated the potential need for additional demonstrations of qualification include design and management of water treatment facilities, and pre-start health and safety reviews for industrial plants. Special certification of professional engineers issuing hoist and conveyance certificates for mine shafts has also been considered.

The message to the profession is clear, according to Gamble: "The public, the government and the marketplace have expectations that engineers provide very specific skills and have the certification for them. If PEO doesn't do it, somebody else will, although it is my hope that PEO will rise to the challenge."

The concern is that if PEO doesn't establish specialist certifications to meet demand, other organizations will step up to bat, which may put the relevance of PEO and the P.Eng. licence in jeopardy. The government would impose whatever extra assurances it feels necessary and PEO would lose both significant authority over engineering and good will in the opposition process.

To date, PEO has positioned itself as a team player, receptive to these government initiatives and willing to work collaboratively, says Ennis. "Certification does not diminish the licence. employees and clients are already entitled to set additional qualifications as terms of employment. Specialist programs are a way of formalizing this."

"[The licence] would still be the foundation for the practise of engineers," says Ennis. "It will remain the minimum requirement."

## Raising the bar

Recognizing that people require legal advice and representation in diverse and complex legal matters, the Law Society of Upper Canada created its Specialist Certification Program in 1986 to help the public, lawyers and other professionals identify those among the profession with demonstrated ability and experience in particular fields of law.

The certification, which has a five-year term, acts as a check for maintaining performance standards and sends a signal to the public of quality assurance.

"Any self-governing body's core business is to give assurance to the public that the members of the profession are competent. Specialist certification is a continuance of that underlying principle," says PEO Councillor David Sims, LL.M., Q.C., a civil litigation specialist. He calls specialist certification an "added value" to the P.Eng. licence that will distinguish those who are practising engineering—out of the 65,000 professional engineers licensed by PEO—from those who are not practising but keeping the P.Eng. title for its prestige value.

In engineering, there are high standards of initial qualification through the admissions process, says Sims, but where the profession falls down is in its ability to give assurance of continuing competence.

"In this day and age, I can't say that because I'm a lawyer, I can do anything. The same with engineering. Let's get PEO to form a competency model, part and parcel of which is professional performance standards and specialist certification," Sims says.

As of January 2000, the Law Society has recognized 10 areas of law in which lawyers can be certified as specialists, including construction, environmental, and workplace safety and insurance. The categories are not closed. Real estate, for example, is under development as an additional category.

The program is voluntary, and no lawyer is required to be certified as a specialist to practise in the area of law covered by that specialty. But only those certified by the Law Society may refer to themselves as specialists in their advertising, or be included in the Society's specialist directory, available online or in print.

Lawyers who have practised for at least seven years in Ontario can apply to be certified in one or two of the recognized areas. Applicants must demonstrate that they have devoted a significant portion of their professional time—usually 50 per cent or more—to the specialty area in recent years. Objective standards for certification exist for each area, and include letters of reference, a thorough review of procedural and substantive knowledge and ongoing participation in professional development. The Law Society staff pre-screen the applicants, after which a volunteer committee of highly experienced practitioners in the specialty area assesses their level of competence.

## Medical specialists

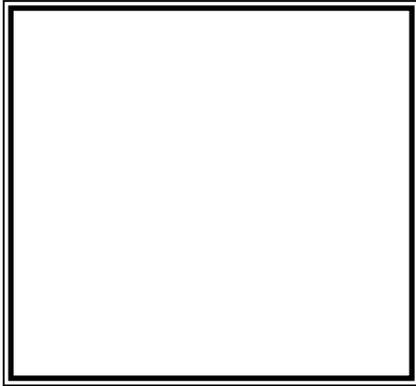
In the medical profession, physicians can be certified in 59 specialties after completing an MD. The Royal College of Physicians and Surgeons of Ontario is the regulatory body that licenses doctors to practise medicine in the province. Certification for the areas of specialty, however, rests with the national accrediting bodies, the Royal College of Physicians and Surgeons of Canada (RCPSC) and the Royal College of Family Physicians of Canada (RCFPC), and has been in place for several decades.

The RCPSC sets the criteria for the designation of a specialty; develops and defines the education objectives and national standards for medical, laboratory and surgical specialties, and conducts examinations for specialist certificates.

For a specialist certificate, physicians must complete the requirements of post-graduate residency education and pass examinations. Certified specialists are invited to join the College as Fellows and are entitled to use the FRCPC or FRCSC designation.

A physician may be certified by the RCPSC without becoming a member. However, about 90 per cent of certified physicians decide to become Fellows within two years of their certification. Fellows are listed on the public directory of the college and the designation signifies an individual's achievement and competence to a national standard.

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"The onus is on us because of public accountability," says Dr. Nadia Mikhael, RCPSC director of education. "We want to ensure that we have the best doctors, the best engineers, the best professionals all around in Canada."

A mandatory Maintenance of Certification program, with a five-year term and yearly audit, was established last year as a requirement for admission to and renewal of Fellowship and for use of the designations.

"There must be some evidence that [physicians and surgeons] are renewing their education, satisfying patients and evolving as professionals," Mikhael explains of the impetus for the program. The program requires the recording of various aspects of the day-to-day job and professional development activities such as conferences, research and peer review.

To date, membership in RCPSC is not required for licensure by the Royal College of Physicians and Surgeons of Ontario, but that may change, according to Mikhael.

The situation is much the same for the Royal College of Family Physicians of Canada (RCFPC), which sets and conducts the certification examination in family medicine. Certificate holders are entitled to use the CCFP designation. Members must achieve a continuing medical education requirement to maintain their certification. This program, introduced in 1998, has a five-year cycle and comprises reporting of professional development and continuing education. Of the college's 15,000 members, 12,000 hold certificates and use the CCFP designation. Currently, membership is voluntary. ✦

