



Fee schedule ignored, price rules: survey

by Sharon Van Ihinger

Fee-based competition for engineering services is a reality on at least half of projects, reported the more than 500 PEO Certificate of Authorization (C of A) holders surveyed by Decima Research on behalf of PEO's Fee Schedule Committee. Forty per cent of respondents also reported providing project proposals below the necessary level to provide professional quality work. However, a majority of the buyers of services surveyed reported that they are unaware of situations in which low bidding has resulted in poor quality engineering.

Committee chair Russ Perrie, P.Eng., says that survey findings reinforce some of the anecdotal evidence the committee has collected and point out issues for the committee to consider, including the need to increase awareness of such PEO resources as the *Guideline for Selection of Engineering Services*, the relevance of PEO's *Schedule of Suggested Fees for Engineering Services*, and the reasons firms underbid work and understaff projects.

Expectations are met

Well-managed projects and good communications are key indicators of good professional service, reported the buyers of engineering services. They said that their past experience with the quality of

service provided by a firm is a major selection criterion. In addition to a firm's reputation and expertise, other selection criteria they reported are the project team or personnel, scheduling and price.

The majority of survey respondents said they prefer fixed pricing for engineering services. Sixteen of 19 were aware of the PEO fee schedule, but most said it is either infrequently or never used.

Although 14 of 17 buyers said they do not believe that public safety is affected by low quality engineering work, concerns were expressed over inexperienced staff, over-design, constructability and timelines. Overall, however, buyers reported that expectations are being met. They said they expect engineering firms to follow codes and standards and not cut corners, and believe they receive good value for their money in a highly competitive environment.

Fees a factor

When asked about their pricing methods for engineering services and their views on solicitation and selection methods, service providers reported that most solicitations are based on an ongoing relationship, and firm selection is often by direct assignment. Pre-qualification and two-stage processes appear to be the least commonly used methods. The C of A holders surveyed were those generating at least 30 per cent of their annual revenues by providing engineering services to external clients.

On the issue of fee-based competition for engineering services, respondents said

the PEO fee schedule is rarely considered. About 20 per cent reported that low bidding of fees had resulted in their assigning junior staff to tasks that would otherwise be assigned to more senior staff. Extra and unpaid work to satisfy clients was also reported by most firms. The service providers cited lower profits, less innovation and less investigation of alternative designs as the fallout of clients selecting the lowest cost firm.

Two-thirds of survey respondents reported that they either seldom or never use a formal contract. Disputes with clients over the scope of work leads to work going unpaid in about one in 10 projects, said 50 per cent of the firms without formal contracts. However, the reported use of contracts varies across sectors. Those in communications, computers and electronics reported using them "always" or "often"; those providing services to other sectors reported "seldom" or "never" using them. Eighty per cent of respondents have professional liability insurance with the majority reporting premium increases over the past year.

Perrie says PEO's next *Schedule of Suggested Fees for Engineering Services*, targeted for publication at the end of 2004, will incorporate changes influenced by the survey results. In addition, Perrie says, "information gathered from various American sources, (for example, the *Brooks Act* that has been U.S. Federal Law since 1972), reinforces our assertions that quality-based selection for engineering services is the route to proper quality service."

Event answers FAQs of aspiring EIRs, host schools

By Connie Mucklestone

Why EIR? This was the question asked rhetorically of the over 80 engineers, educators, students, human resource profes-

sionals and other guests attending an EIR (Engineer-in-Residence) Greater Toronto Area Community Event on May 22, 2003.

"School and education today are complicated, and kids need inspiration," EIR Project Leader Jeffrey Crelinsten said. "And

my experience with science and technology awareness over many years has shown me that the successful people have had role models." Co-founder of The Impact Group, consultants on science and technology awareness who administer the EIR

program, Crelinsten said that during the feasibility phase of the program's development, educators had reported that students need to see relevance for the concepts they are learning, which EIR provides.

Begun as a pilot with five Toronto-area schools in 1998, there are now over 40 EIR schools across Ontario. The program aims to provide positive role models to students and encourage them to pursue opportunities in science, math and engineering. The program matches volunteer engineers with a school in their area, where they work with teachers to develop a custom-tailored program of hands-on activities, presentations, and competitions that meets the needs of the school, teachers, students and the engineer.

Looking at the benefits more broadly, said Crelinsten, research at the Organization for Economic Cooperation and Development indicates that highly innovative countries have strong linkages between industry and education, right down to the elementary school level, which is another feature of EIR. Employers, he reported, say they want employees who can manage a team, communicate, and do a project plan with deliverables, which are hallmarks of the activities an EIR undertakes with students.

The final benefits he noted are the personal satisfaction and professional development that an engineer-in-residence can gain from the program. "If you can hold the attention of a 30-kid class, you're an ace in the boardroom," Crelinsten quipped.

"There can be nothing more rewarding than seeing the enlightenment that happens when young people are allowed to be creative and to explore their own ideas," said keynote speaker Robert T.E. Gillespie, P.Eng., chairman and chief executive officer, General Electric Canada, an EIR program sponsor. Mentorship and coaching are also fundamental to engineering, he said.

Gillespie related that in his own life, he found it useful to have had practical experience fixing things before learning technical concepts, but that he'd hit the limit of where memorization could take him when he studied calculus at university "and didn't have any idea what it was used for."

"The EIR concept is a fantastic one if it means experienced engineers can help educators bring realistic practical applica-

tions to young people before they get so bored they can't relate to anything," he said. Noting that most engineers had likely shared the experience of working in engineering and "suddenly realizing what the theory they learned in second year was used for," Gillespie said he was lucky to have had good mentoring in university so that he "didn't shut down and didn't become afraid" when he had difficulty seeing the application of particular concepts.

Gillespie said his experience of attending university with veterans of the Second World War, who were always top of the class, also emphasized for him the importance of experience in grasping concepts. "This demonstrates to me that if you can get kids excited and turned on and can teach the applications [of science and engineering concepts] early, it's better than teaching applications later. And that's what EIR does," he said.

Gillespie noted that the EIR program also plays a small part in raising awareness locally of the value of the profession to society.

Other speakers at the GTA community event, the fourth such, included EIR Deb Soanes, P.Eng., and Principal Monique Warren-Grybas, Enniskillen Public School; EIR Lee Watson, P.Eng., and teacher Michelle Gioskos, Pauline Johnson Public School; and EIR Don Kaluzny, P.Eng., and teacher Peter Berndt, Laurelwood Public School. A contingent of students from the schools was also on hand to display and discuss the projects developed with their

EIR. Like the previous community events in Ottawa, Windsor and Waterloo, the GTA event was intended to increase participation in the program by local firms and schools. MC was PEO President-elect George Comrie, P.Eng., who chairs the EIR subcommittee of PEO's Education Committee.

Besides PEO and GE Canada, supporters of the program are the Ontario government, Consulting Engineers of Ontario, The Impact Group, Wardrop, Gennum Corporation, Conestoga-Rovers & Associates, Nortel Networks and the National Research Council. The EIR Program continues to recruit engineers interested in participating in the program. For more information visit the EIR website (www.eir.ca) or call the EIR Program Office at (416) 481-7070.



Lee Watson, P.Eng., an engineer at Dofasco and EIR at Pauline Johnson Public School, makes a point.



Bob Gillespie, P.Eng., CEO, General Electric Canada, talks with the students from Enniskillen P.S.

Society holds second AGM, makes process, procedural changes

by Joan Bailey

After completing its first full year of operation and with the need for financial self-sufficiency on the horizon, the Ontario Society of Professional Engineers (the Society) has made changes to its general bylaw to help ease the transition. A bylaw review session preceded the Society's 2003 annual general meeting, held May 10 in Toronto. The session gave the over 150 delegates an opportunity to learn about the proposed bylaw changes, and air any concerns raised by them.

Outgoing President Catherine Karakatsanis, P.Eng., introduced Linda Godel, legal counsel for the Society, who explained that the bylaw amendments sought to clarify the existing bylaws, improve processes and procedures and benefit members.

The need for the bylaw changes is due, in part, to the change in the relationship of the Society and PEO, explained Bob Goodings, P.Eng., the Society's founding chair. Transfer payments to fund programs transferred to the Society from PEO will cease as of January 1, 2004. The changes will update Bylaw 1, originally drafted by a five-member committee and reviewed by legal counsel and the Society board, in steps throughout the year. A new general regulation, Bylaw 2, will supersede Bylaw 1 in January 2004.

Strong criticism was voiced from the floor regarding the resolution to change the membership categories. Critics felt that eliminating the sustaining member category "distances the Society from PEO" and questioned why there was no consultation with the Society membership on the item. Karakatsanis explained that the Attorney General's office, in allowing the split of PEO into the Society, mandated that after three years the members would have to join voluntarily by opting in rather than opting out. Currently, the Society's sustaining members are all PEO members,



Outgoing Society President Catherine Karakatsanis, P.Eng., chaired the annual meeting and bylaw review.

and PEO collects the fees on the Society's behalf.

All of the regulation changes were approved in the membership vote during

the AGM. Other changes include:

- ◆ creation of an executive committee to oversee, and assist staff, in the operation of the Society;
- ◆ separating the secretary and vice chair to the board into two separate positions, for operational efficiency and continuity; and
- ◆ changing the requirement for holding a general assembly from annually to at least every two years.

The Society members also voted in favour of a remuneration proposal for board members to compensate them for days spent away from normal employment and to partially defray out-of-pocket costs. PEO is still considering a similar proposal (see *The Link*, June/July 2003, p. 6). Said Karakatsanis: "We think we have developed a fair policy that will encourage younger engineers, employee engineers and self-employed engineers to become involved."

The schedule of honoraria includes a chair's stipend and directors' allowances.



At the Society's annual general meeting held on May 10, 2003 at the Westin Prince Hotel in Toronto, eligible voters flashed their cards (yellow for professional members and blue for sustaining members) to vote. All motions were carried.

The stipend can be 20 per cent of the previous year's gross earnings, to a maximum of \$20,000. It can be given to the chair, to the chair's employer in lieu of time taken from work duties, or be used to hire an assistant, said Karakatsanis.

Directors may apply for compensation for days spent away from work, up to a maximum of six days per year.

A report from the president and chair highlighted some of the society's achievements for 2002, including expanding the

career service, introducing a student membership category and launching Pathways, a pilot program designed to help bridge the employment gap for foreign-trained engineers now living in Ontario. Above all of these achievements, said Karakatsanis, is the Society's work in advocacy.

"Members wanted us to build a community that could lobby governments" she said, and added that directors, Society staff and members have met with politicians and with the finance ministry, the

environment ministry, the premier's office and others, and have affected change.

"Many of our recommendations were included in the *Sustainable Water and Sewage Systems Act*, Bill 175," she added. (See http://www.ospe.on.ca/annual_reports.html for more.)

After the meeting, the Society's board elected Daniel Young, P.Eng., as its new chair, Annette Bergeron, P.Eng., as vice-chair, and Cindy Krenosky, P.Eng., as treasurer. Karakatsanis will serve as past chair.

BC engineers favour technologist merger

by Stephanie Wei

Members of the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) have voted 72 per cent in favour of amending the *Engineers and Geoscientists Act* to enable APEGBC to merge with the Applied Science Technologists & Technicians of British Columbia (ASTTBC). The May referendum was the result of over two years of discussion between the two groups (see "Future Team," *Engineering Dimensions*, September/October 2002, pp. 30-33). The technicians and technologists voted 91 per cent in favour of the merger.

Members were asked: "Do you support or oppose the proposal to integrate engineering and geoscience technology practice under amended APEGBC legislation?" The proposal is a result of an APEGBC-ASTTBC Joint Task Force, appointed in spring 2001 to study strategic alliance options for the two organizations. It recommends a "one act-one association" model, with a governing council of 19 members that will represent APEGBC's 19,000 members and ASTTBC's 8000 engineering members. APEGBC's Council has since voted to ask the provincial government formally to amend its legislation to permit the merger of ASTTBC with APEGBC with comprehensive legislation.

APEGBC Executive Director John Bremner, P.Eng., says he is "elated" with the referendum results. "I believe this is

absolutely the right thing to do," he says. "This will strengthen the profession and improve our mandate to protect the public in the practice of engineering and geoscience." Bremner said he believes that if technologists in other provinces were pre-

sented with a similar proposal, they would probably show the same support.

Not so, says Angela Shama, P.Eng., C.E.T., executive director, Ontario Association of Certified Engineering Technicians and Technologists (OACETT).

“Our certified technicians and technologists are professionals who are capable of working to the ability of their experience and training. They do not need to be managed by engineers and geoscientists. OACETT will continue to seek recognition for its 21,000 members under demand-side legislation and umbrella legislation.”

However, in September, 2002, PEO Council approved recommendations of its Technologist Licensure Task Group, aimed at better recognizing the expertise of other members of the engineering team. The recommendations include that PEO grant a “licensed engineering technologist” (L.E.T.) title to certified engineering technologists who meet the academic, experience and other requirements. The title holders would hold a PEO limited licence to practise professional engineering within a narrowly defined scope of practice. It was also recommended that L.E.T.s and all PEO limited licence holders be allowed to hold



Under the B.C. merger proposals, the current APEGBC logo and acronym would come to stand for the Association of Professionals in Engineering and Geoscience of British Columbia.

Certificates of Authorization to enable independent practice within the scope of their limited licence. Council also agreed to consider the implications of making limited licensees members of PEO (see “Recognition of C.E.T.s gets the go ahead,” *Engineering Dimensions*, November/December 2002, p. 42). Council subsequently endorsed a staff-prepared implementation framework for the approved recommendations, several of which will require changes to PEO’s legislation. Work to define scopes of practice and to develop the implementation details of the other recommendations is ongoing.

Meanwhile, the Canadian Council of Professional Engineers has formed a

Technologist Task Force of its board of directors to look at the situation in each province, make observations, and monitor developments. PEO Director of Professional Affairs Johnny Zuccon, P.Eng., who represents PEO on the task force, says PEO Council does not have a position on the merger of the British Columbia organizations, notwithstanding that PEO has chosen a different route to regulate the practice of technologists practising engineering in defined areas. However, PEO has expressed concerns directly to APEGBC that a proposed definition of the practice of engineering technology is similar enough to the definition of professional engineering as to be confusing. PEO also noted potential problems in APEGBC enforcing the new legislation if its definitions are not clear and compatible with those in wide use across the country.

Stephanie Wei is a freelance writer based in Toronto.

Drinking Water regs increase involvement of P.Engs

by Sharon Van Ihinger

Under a host of regulations made under Bill 195, the *Safe Drinking Water Act* (SWDA), owners of municipal and non-municipal drinking water systems, both residential (large, small, year-round and seasonal) and non-residential (large and small) must file reports prepared by or under the supervision of professional engineers. These requirements are contained in Reg. 170/03, *Drinking Water Systems* which became effective in June, 2003.

The new regulation consolidates the report requirements of the previous regulations *Drinking Water Protection for Larger Waterworks* (Reg. 459/00) and *Drinking Water Protection for Smaller Waterworks Serving Designated Facilities* (Reg. 505/01), and also extends these requirements to new categories of drinking water system not covered by the previous regulations. The Engineers' Reports required under Schedule 20 of the new regulation must be prepared according to the environment ministry's *Terms of Reference for Engineers' Reports for*

Water Works, originally published in August 2000, and must be filed every five years. Engineering Evaluation Reports required under Schedule 21 of the new regulation must be prepared according to the criteria in the schedule, and must be filed every five years for surface water systems and every 10 years for groundwater systems.

Reg. 170/03 also requires (Schedule 5) that owners of municipal non-residential and non-municipal residential and non-residential drinking water systems file an assessment by a professional engineer if they seek relief from the treatment requirements relating to these systems. Under Schedule 2, if these drinking-water systems obtain water from a raw water supply that is surface water, their primary disinfection equipment must provide disinfection in accordance with MOE's defined procedure or their owners must provide a professional engineer's opinion that their alternative equipment is at least as good as the MOE procedure. Secondary disinfection using chlorination must also meet the requirements of MOE's disinfection procedure or the owner must provide a professional engi-

neer's opinion that the alternative disinfection equipment is at least as effective.

Besides Reg. 170/03, MOE has made the following additional regulations under the *Safe Drinking Water Act*: Reg. 249/03 and Reg. 269/03 (both amending Reg. 170/03 for clarity, effective variously on March 3, June 16, and October 1, 2003); Reg. 169/03 (*Ontario Drinking Water Standards*, effective May, 2003) and Reg. 269/03 (amending Reg. 169/03, effective June 30, 2003); Reg. 171/03 (*Definitions of Words and Expressions in the Act*) and Reg. 270/03 (amending 171/03, effective June 30, 2003); Reg. 172/03 (*Definitions of "Deficiency" and "Municipal Drinking-Water System,"* effective when section 2(1) of the act is effective); Reg. 173/03 (*Schools, Private Schools and Day Nurseries*, effective when section 11(1) of the act is effective); and Reg. 248/03 (*Drinking Water Testing Services*, effective variously on June 16, August 1 and October 1, 2003). Section 3(5) of Reg. 248/03 exempts professional engineers or those acting under their supervision from having to obtain a drinking water testing

licence if they are performing the tests specified in the regulation.

In addition, MOE has posted to the Environmental Bill of Rights Registry for comment a draft regulation under the SDWA dealing with *Compliance and Enforcement*. The regulation outlines the requirements for inspections of drinking water systems and laboratories providing a drinking water testing service and investigation and enforcement of contraventions relating to a drinking water system and laboratories that test drinking water. Under the proposed regulation, if MOE finds a drinking water system to be in non-compliance according to section 4 of its *Compliance Guideline*, the owner would be required to submit a compliance report within 60 days. The report would need to be certified by a professional engineer if MOE's order for deficiency required the owner to install or alter any equipment to comply with Schedules 1 or 2 (minimum treatment

requirements) or Schedules 7-9 (operational checks, monitoring and sampling) of Reg. 170/03 as amended.

In its submissions on the draft SDWA and a draft *Drinking Water Protection Regulation*, PEO stressed that because drinking-water systems depend on engineered works, professional engineers must take responsibility for assessing and confirming that alteration to such systems or variances from their treatment requirements will not put users at risk. It appears these recommendations have been captured in Schedules 2, 5 and 21 of Reg. 170/03 as amended. In addition, Schedule 4 of the regulation, requiring that a "professional hydrogeologist" take responsibility for assessing requests for relief from the regulatory requirements for certain types of drinking-water system, reflects a PEO recommendation that a licensed professional must take responsibility for this work to ensure public accountability. The message that

the use of licensed professionals enhances public accountability and is instrumental in restoring and maintaining public confidence appears also to be reflected in the draft compliance and enforcement regulation.

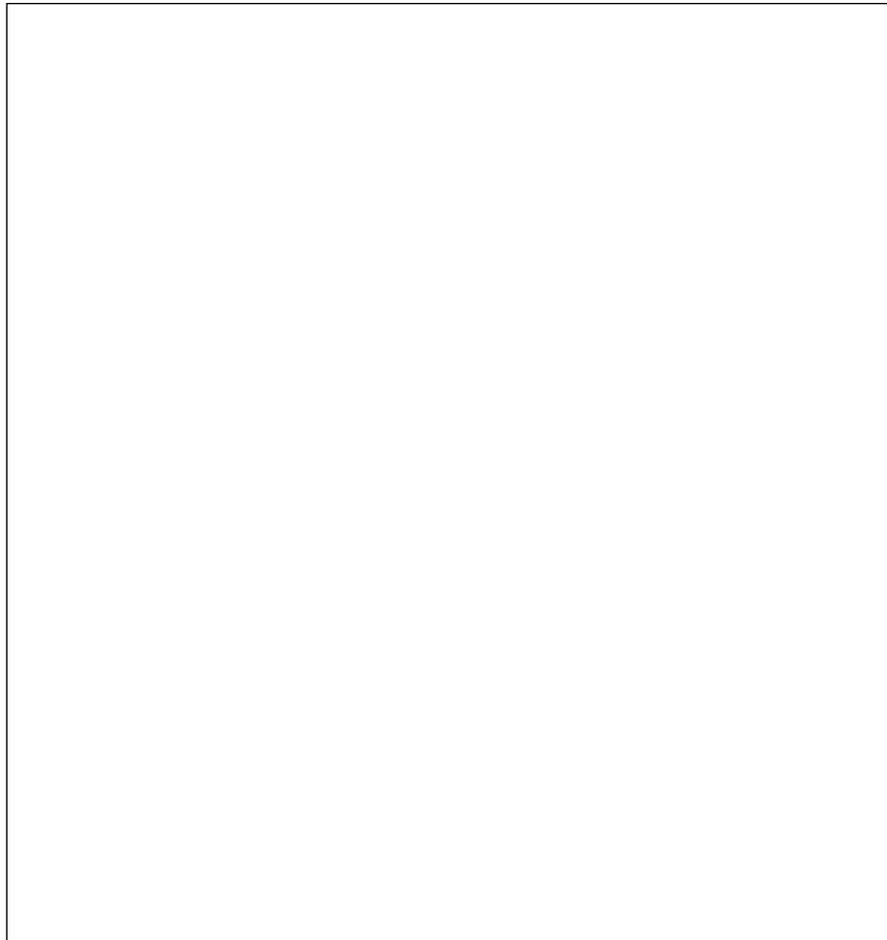
For more information on the SDWA and regulations, visit e-laws at www.gov.on.ca/MBS/english/publications/statregs/index.html. To trace PEO's involvement since the May 2000 Walkerton tragedy, go to www.peo.on.ca, click on Publications, then Government Briefs.

Brownfields update

PEO has also continued discussions with MOE on a draft regulation under the *Brownfields Statute Law Amendment Act* that defines who will ultimately be held accountable as a "qualified person" for certifying Records of Site Condition (RSC) under the *Environmental Protection Act*.

Representatives of PEO, the Association of Professional Geoscientists of Ontario and other stakeholders have been working with the ministry for more than two years on a definition of "qualified person." In February 2003, the *Brownfields Draft Regulation—Relating to the Filing of a Record of Site Condition* was released for public comment (see "PEO comments on brownfields QP definition,:" *Engineering Dimensions*, May/June 2003, p. 17).

To follow up PEO's comments on the draft regulation, Past President Richard Braddock, P.Eng., CEO/Registrar Kim Allen, P.Eng., and Director of Professional Affairs Johnny Zuccon, P.Eng., met with then Environment Minister Chris Stockwell on May 13 to convey the key message that the accountability of certified practitioners is not equivalent to that of licensed professionals. As written, the draft regulation would see licensed professionals and certified practitioners as equally qualified to sign RSCs. In its comments and meetings, PEO has made clear that while environmental assessment and remediation is multidisciplinary and certain technologists may be qualified to work in the sector, the necessary public accountability for taking responsibility for environmental site assessment and remediation can only be assured through a professional licence.



Attorney General Norm Sterling, P.Eng., said in a May 16, 2003 letter to PEO that followed up an April meeting with then President Braddock and PEO staff that he will follow with interest the development of the proposed brownfields regulation. The letter also said that he is counting on assistance from the engineering community and that engineers must take the lead to educate the public, because of the importance that "elected officials and others be given an opportunity to understand this issue." On June 6 in Ottawa, PEO's recently sworn-in President Ken McMartin, P.Eng., and Vice Presidents Bob Dunn, P.Eng., and Allen Lucas, P.Eng., met again with the Attorney General to introduce themselves as officers of the new Council and to discuss with him ways in which PEO can raise awareness with government of its role and mandate.

Bill 124 details soon

It appears the Ministry of Municipal Affairs and Housing (MMAH) is finalizing proposed regulations under Bill 124, the *Building Code Statute Law Amendment Act*, and is set to announce details shortly. Bill 124 received Royal Assent in 2002, but has not yet been proclaimed pending the coming into force of regulations (see "Housing ministry grapples with Bill 124 insurance," *Engineering Dimensions*, May/June 2003, p. 11.)

Since before Bill 124 received Royal Assent, PEO has been discussing its role in administering the government exams that will be required for professional engineers seeking to qualify as designers. Also of concern is a proposed requirement for building practitioners (including engineers) to carry professional liability insurance covering major structural defects for

seven years after project completion on jobs valued at more than \$50,000.

PEO is still determining how the new exam and insurance requirements might affect Regulation 941 under the *Professional Engineers Act*. MMAH has expressed a desire that PEO's regulation mirror the exam and insurance provisions of the Bill 124 regulation to enable P.Engs to qualify through the PEO-administered exams and PEO to keep a registry of those who have qualified. PEO has pointed out the difficulties it sees with this approach.

At press time, MMAH had yet to announce the insurance and certification requirement details, but information will be available at www.obc.mah.gov.on.ca, once available. For further information on PEO's continuing involvement, watch *Engineering Dimensions*, *The Link* and the website.

Confined space regulation unclear, says PEO

by Sharon Van Ihinger

PEO has again taken issue with a proposed definition of "qualified person" in draft Ontario legislation.

In a response to the labour ministry on a draft regulation under the *Occupational Health and Safety Act* (OHSA) to cover confined spaces, PEO said the proposed definition of "qualified person" did not provide an adequate standard for determining who would be qualified for specific tasks described in the regulation. "If the Ministry's aim in this important public policy is to achieve responsibility for activities vital to the public welfare," PEO's submission said, "then the regulation must define 'qualified person' in terms of the necessary level of public accountability to assume such responsibility. Clearly this can be best achieved by equating, where appropriate for the task, qualified persons with licensed individuals." The new harmonized regulation, when approved, will replace confined space requirements in the existing *Regulations*

for Industrial Establishments; Regulations for Construction Projects; Regulations for Health Care and Residential Facilities; and Regulations for Mining and Mining Plants. A "confined space" is one in which,

because of its construction, location, contents or work activity therein, the accumulation of a hazardous gas, vapour, dust or fume, or the creation of an oxygen-deficient atmosphere, may occur.

Bill 57 amended the OHSA in June 2001 to provide a basis for Codes of Practice, aimed at making Ontario workplaces safer for workers. A Code of Practice to be incorporated into the "Entry Permit System" section in the draft regulation for confined spaces would allow various approaches for compliance to accommodate sectoral differences and define standards for compliance. A Code of Practice is a set of instructions, steps or standards that sets out requirements to comply with the associated performance-based OHSA regulations.

In its response, prepared by the Professional Practice Committee, which reviewed the draft regulation, PEO said the draft is unclear on who would be responsible for preparing the plan (a specific written plan prepared for a particular confined space.) "As with pre-start health and safety reviews," PEO said, "the plan development, which involves professional judgment, should be assumed by professional engineers." As well, the regulation requires that if a workplace has one or more confined spaces, the employer shall ensure that a written program for the workplace is developed, implemented and maintained in accordance with the regulation. PEO's submission noted that the method for identifying changes that may affect the confined space before the program can be reviewed must be more clearly defined, since such identification can be a complex task in an industrial setting such as a power station.

PEO also recommended revision of several definitions in the draft regulation. The definition of "atmospheric hazards," PEO said, should also include contaminants known to have long-term detrimental health effects, while subsection b of "confined space" should be revised to read: "work that is done in it or near it." Because the term "qualified person" is unclear and used inconsistently through the draft regulation, PEO recommended that the ministry define different categories of person, e.g. worker, supervisor, trainer, and use them to replace "qualified person" throughout the regulation.

For more details or to access the most



A Code of Practice to be incorporated into the "Entry Permit System" section in a new harmonized draft regulation to cover confined spaces would allow various approaches to compliance to accommodate different sectors, including mines and mining plants. PEO's comments on the draft are available on its website.

recently published draft of the regulation, go to www.gov.on.ca/LAB/english/about/intheworks/02-03.html. PEO's sub-

mission is available from the Government Briefs page under Publications on its website at www.peo.on.ca.

The future of engineering



Ontario Professional Engineers Foundation for Education board member Nick Monsour, P.Eng. (right), stands with 2003 Entrance Scholarship winners from the University of Ottawa. Vijay Narasinh (left) and Lori Hamilton (centre) were the top male and female entrants to the university's Faculty of Engineering this year. The awards were presented at the faculty's Annual Awards Ceremony. The Foundation for Education is a registered charity that is run by its own board of directors under the stewardship of PEO and the Ontario Society of Professional Engineers, and welcomes donations from professional engineers. Contributions may be mailed to Ontario Professional Engineers Foundation for Education, 25 Sheppard Ave. W., Suite 1000, Toronto, ON M2N 6S9.

Technical committees provide advice on objective-based building codes

by Sharon Van Ihinger

PEO representatives on Ontario Building Code (OBC) technical committees have reviewed and provided advice on specific technical issues and how these issues could impact on implementation of a new objective-based building code. The Building and Development Branch of the Ministry of Municipal Affairs and Housing (MMAH) asked PEO and other key stakeholders from government and industry to participate in the code review process (see "PEO representatives participate in process toward objective-based building code," *Engineering Dimensions*, Jan./Feb. 2002, p. 11.)

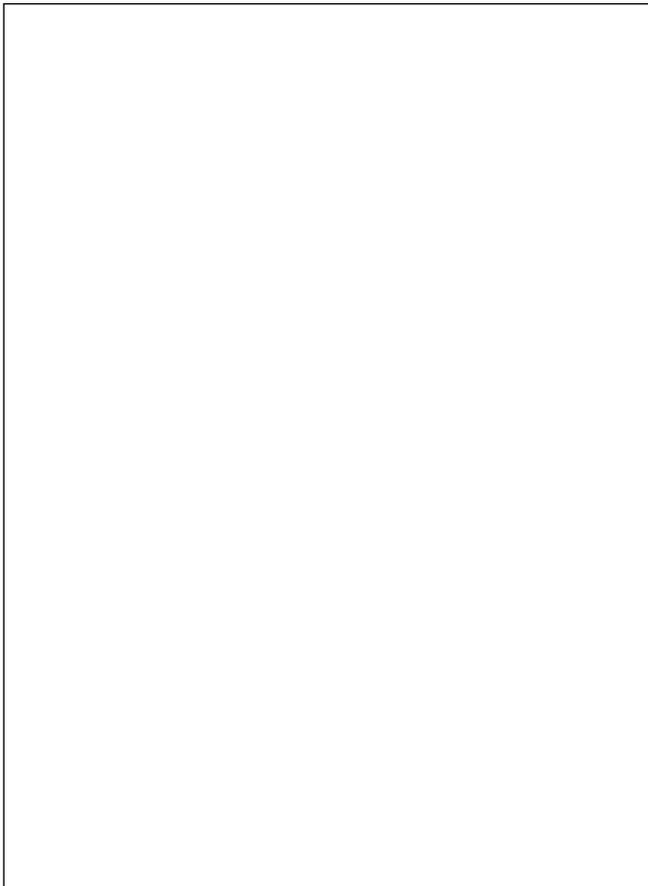
Building codes in Ontario are moving away from a largely "prescriptive" model that tells the building industry what they should do and how to do it to an objective-based model that combines prescriptive design criteria and performance elements. The new model is aimed at providing more information to aid code users in applying the code. Alternative designs will be permitted if they meet the code objectives for health and safety, fire,

accessibility, and structural protection, which may ultimately require engineers to exercise more professional judgment compared to prescriptive-based codes. Other objectives of the new codes include environmental integrity, and water and energy conservation. It is felt that the new building code model will make the introduction of new project methods and materials easier. In the past, inclusion of a new material or method in the code could take up to six or seven years.

During the code review process, each committee member examined the objective and intent of each provision of the new draft code as they relate to the current (prescriptive) regulation, as well as the functional statement and application, and provided their comments. In all, 737 proposed changes to the OBC and over 200 to the Ontario Fire Code have been considered, according to Alek Antoniuk, coordinator of code development, Building and Development Branch, MMAH. For more information on the review process, visit www.objectivecodes.gov.on.ca/2003consultation.html.

The technical committees will meet again this fall to review public consultation feedback and to make recommendations to the Canadian Commission on Building and Fire Codes.

Due to the impending proclamation of Bill 124 and its regulations (see story on p. 17), the government intends to hold off finalizing and publishing the new code for two to three years, says Antoniuk. He expects publication of the Ontario code will be timed to coincide with publication of a new version of the National Building Code (last published in 1995).



Coming in September/October

2003 is the United Nations International Year of Fresh Water. What have we learned from Walkerton and how is Ontario's drinking water system better protected today than it was in May 2000? What other legislative changes are in the works to protect our land, water and air? What will be the roles and responsibilities of professional engineers under these statutes? What role has PEO had in their creation?

Features: Look for our feature on water quality. In the "post-Walkerton" era in Ontario, municipalities are required to ensure the long-term safety and viability of their water sources. Ramsey Lake, the centre of the most important watershed in the City of Greater Sudbury, is the drinking water reservoir for over 50,000 Sudbury citizens. Successes of the current monitoring program on Ramsey Lake will provide an opportunity to guide the implementation of similar remote monitoring programs on other important water bodies throughout the province. Authors: Graeme Spiers and Alan Locke, Laurentian University.

Professional Practice: What every Engineer needs to know about Privacy Legislation by Richard Steinecke, LLB.

Also look for the Ontario Engineers' Salaries: Survey of Employers