

Speech to Association of Professional Engineers and Geoscientists of B.C. Annual Conference and AGM

Advanced Education Minister Murray Coell
Vancouver
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Check against delivery

It's an honour to be invited to speak to APEGBC. Your members include some of Canada's best engineers and geoscientists today. Some of tomorrow's best are also here with us in this room – I'd like to welcome engineering and geoscience students from three of our top universities – the University of B.C., Simon Fraser University, and the University of Victoria.

I'd also like to acknowledge the winners of APEGBC's president's awards:

- G. Ward Wilson, P.Eng - R. A. McLachlan Award
- Doug VanDine, P.Eng./P.Geo. - C. J. Westerman Award
- David H. Rudberg, P.Eng., and Nimal Rajapakse, P.Eng. - Meritorious Achievement Award
- Haji Charania, P.Eng. - Community Service Award
- Michael Bovis, P.Geo., Colin E. Smith, P.Eng. and Elizabeth A. Croft, P.Eng. -
- Kevin J. Smith, P.Eng. (professor, and head of the department of chemical and biological engineering, University of B.C.) - Teaching Award

My congratulations to you all.

I also congratulate APEGBC for seeing the importance of recognizing accomplishments of its members in such a public way.

Engineers, geoscientists are unsung heroes, working largely behind the scenes – building things, analysing things, and solving problems. You make life much easier for the rest of us - but your contributions often go unnoticed or are taken for granted.

Just as an example, my staff challenged me to notice every way I relied on the work of an engineer or a geoscientist on my way over from Victoria this morning. I could have started with the design of alarm clock, the bed I slept in, and the structural integrity of my condo. But even limiting myself to the trip, the list kept growing:

- The taxis we took.
- The roads they drove on.
- The sewer and cable systems UNDER the roads.
- The De Havilland Dash 8 that brought me safely from YYJ to YVR.
- The airports themselves.
- This conference resort.
- And even the food we've enjoyed at lunch.

Engineers' work is everywhere, including probably two-thirds of government ministries – Forests ... Environment ... Agriculture and Land ... Community Services ... Energy, Mines and Petroleum Resources ... the list goes on.

Much of this work is life-protecting ... life-enhancing ... and even life-saving.

You work with the Education Ministry to evaluate seismic risks in schools, for example. Because we live in an area so seismically active, we have world-class engineers doing leading-edge work.

I just read recently about a device being developed by UBC engineering professor Guy Dumont. It will use touch – vibrations, pressure, heat, or puffs of air – to alert anesthetists in the operating room to dangerous changes in their patients' vital signals. The way I understand it, current systems use sound only, and important signals can easily be missed because there are so many beeps and alarms.

Human error is said to account for 30 per cent of deaths or near-deaths in operating rooms. So I have no doubt this will save lives.

The biggest, most obvious showcase for B.C.'s engineers and geoscientists is the 2010 Winter Olympics in Vancouver and Whistler.

The 2010 Olympics are B.C.'s turn to shine – for athletes, obviously, but also engineers and geoscientists. You are developing athletic venues ... the International Broadcast Centre ... athletes' villages ... transportation systems ... and support infrastructure like sewers, water and solid waste management. You're making B.C. a world showcase for green building design and construction.

And you're revamping the Sea to Sky Highway – a complex engineering challenge if ever there was one, with its near-vertical rock cliffs above, unstable rockfill slopes below, and more twists and turns than a mystery by William Deverill.

The Sea to Sky evolved from an old logging road, which has the exact opposite design parameters from public roads. For a logging road, twists and turns are OK – it's steep grades you avoid, because they're hard for heavily loaded trucks to negotiate. For public roads, on the other hand, up and down is OK, but twists and turns cause fatalities. So there are huge challenges in re-engineering – which you are meeting by developing innovative techniques.

I was impressed that the test section of the Sea to Sky Highway was completed both on time AND 30 per cent under budget. That was an amazing accomplishment, which lays the groundwork for an improved road that will save lives long after the Olympics are over.

Difficult roads notwithstanding, B.C. is fortunate – it's the best place on earth to live. And because engineers and geoscientists are intelligent and analytical, a lot of them move here. So at the moment, there is no shortage in this province.

But B.C. is seeing sustained economic resurgence. We're outperforming the national average ... there's record growth in construction. In addition, demographic change means high rate of retirement.

We're educating more engineers and geoscientists, but even with our 25,000-seat expansion, we will need more than our post-secondary system can produce.

So I encourage you to continue working on the challenges of certifying foreign-trained professionals. This will be of service to your organization ... to the B.C. public ... and to engineers and geoscientists who want to relocate to our province.

It's an opportunity to help foreign-trained people adapt to the way we do business here. In some parts of the world, under-the-table payments are perfectly acceptable practices – even necessary – to get projects moving forward. To be fair to someone coming into our system, it's important for them to understand our ethics and business environment.

I recognize and appreciate the amount of work that goes into interviewing people, and evaluating their educational background, experience and transcripts. It's also something another professional does better than government.

APEGBC has already done good work with mutual recognition across Canada, and with 16 other countries.

Government recognizes when a profession comes of age and can be relied upon to raise issues of public health and safety. APEGBC has 1,000 members doing volunteer work that contributes to public health and safety.

You work to ensure members stay up to date with the continuously evolving body of knowledge. And I applaud your work in setting up an online system so your members will be able to report their professional development activity easily.

I'd also like to recognize the work that goes on to investigate complaints – determining if a member must be disciplined for the protection of the public, and enforcing that discipline.

And I know how many hours go into serving on a multitude of committees and task forces.

I want to acknowledge Richard O'Brian Blackall and Hiromi Matsui for their contributions to APEGBC during their years on the board.

And I'd like to congratulate Lawrence Woo and Dr. Joan Hansen for their appointments to the APEGBC council, and thank them for agreeing to serve.

Moving forward, I understand new legislation would make your job easier, and I support your desire for a new act.

Legislation is considered long-lived if it makes it to 20 years ... and the current act is 85 years old. It covers such things as the design of airships, for which there has been little call since the 1930s. Meanwhile, it doesn't allow you to easily recognize new sub-disciplines. Structural engineers, for example. In little more than a year, the City of Vancouver will require that designation for certain signoffs.

We want to address the immediate need to modernize the legislation and fill a few gaps through interim amendments until wholesale revision is possible.

I also recognize your concerns about the length of civil limitation period and the difficulty APEGBC members are having with finding liability insurance. This is the responsibility of the Ministry of Attorney General, which reviewed civil liability in 2002. No changes were made then, but it's still possible that the ultimate limitation period will be changed in future. I support your plans to request a meeting with Ministry of Attorney General staff.

I'd like to thank you again for the opportunity to be part of annual conference.

I'm looking forward to continuing to work with APEGBC to bring the Engineers and Geoscientists Act out of the early 1900s and into the 21st century. I'm also looking forward to seeing the innovations that will emerge from your work on Olympic venues and infrastructure. And most of all, I'm looking forward to continued excellence in engineering and geoscience that will help B.C. achieve our five great goals.

Just take the first one – making B.C. the best-educated and most literate jurisdiction on the continent. For that, we need schools, libraries and universities. We need the machinery to print books, newspapers and magazines. We need the buses that deliver those books, newspapers and magazines to remote communities as part of our adult literacy program. And we need the roads for the buses to drive on.

Much of the B.C. we know today was built on the knowledge and innovation of your members, past and present. And many of the advances we'll be making in the Golden Decade ahead will also depend on the ingenuity and hard work of our engineers and geoscientists.

Thank you for your contributions in the past – and your contributions yet to come.