

Discussion Paper
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The Regulation of Engineers and Technologists in Alberta “It is Time for Change”

Introduction

Engineering and technology are intertwined, and engineers and technologists work together across a wide spectrum of professional activity.

Currently, Professional Engineers, Geologists and Geophysicists and Registered Professional Technologists are regulated under provincial legislation as members of The Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA). Technologists are not currently regulated by statute, although many are voluntary members of the Association of Science and Engineering Technology Professionals of Alberta (ASET), which is registered under the *Societies Act* but is not a statutory regulatory organization.

In early 2006, APEGGA and ASET held separate discussions with the Government of Alberta about how engineering and technology should be regulated. The Minister of Alberta Human Resources and Employment, Hon. Mike Cardinal, directed the two organizations to discuss a regulatory model based on “one Act, two Associations” that protects and serves the interests of all Albertans.

Discussions between APEGGA and ASET have developed the concept of bringing ASET and its members under the regulatory umbrella of a new Act.

Why Change?

The model being proposed by APEGGA and ASET further protects the interests and safety of the public in the following ways:

- First and foremost, the fundamental purpose of evolving to a one Act, two Associations model is to better protect the public interest by assuring the competence of engineering and technology professionals across the spectrum of their intertwined practices.

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- In the real world, engineers and technologists work in integrated teams — in order to serve the public interest effectively, regulation of their respective professional practices needs to be conducted in an integrated manner.
- Bringing ASET under the Act will provide it with a statutorily-recognized robust self-regulating framework for ensuring appropriate professional standards and discipline for all of the technologists who are its members.
- Having the two Associations under the same Act will facilitate the synchronization of their regulatory practice and ethical standards.
- Having the two Associations under one Act also provides an opportunity to create a new, jointly-regulated category of senior technologists (P.Tech.) who would be entitled to practise independently within a specified scope of practice applying recognized and routine codes and standards (as described below).
- Alberta projects will benefit from the added option of having certain elements of the work — i.e., tasks that fall within recognized and routine codes and standards — performed by senior technologists (P.Techs) who are certified within a recognized regulatory framework as being appropriately competent to conduct such work. Being able to use the competencies of these individuals will optimize the effectiveness of the Alberta workforce.
- The public, industry and other professionals will understand more clearly the respective roles of the various engineering professionals (P.Eng.s, R.P.T.s, P.Tech.s and C.E.T.s).

The One Act with More-than-One Association Model

Professional regulation under an umbrella act is not new in Alberta.

The *Health Professions Act* provides a framework for approximately 30 professions, ranging from Physicians to X-Ray Technicians and from Dentists to Dental Hygienists.

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Professional Foresters and Forestry Technologists are regulated under a single Act, as are Chartered Accountants, Certified Management Accountants and Certified General Accountants.

Indeed, the current *Engineering, Geology and Geophysics Professions Act* is itself an umbrella Act. Since 1965, it has governed the three professions of engineering, geology and geophysics, although through one Association (APEGGA). Since 1999, the *EGGP Act* has recognized that ASET and APEGGA each have roles in jointly administering the system by which members of ASET may be designated as Registered Engineering Technologists (R.E.T.s) and thereafter may be licensed by APEGGA as Registered Professional Technologists (R.P.T.s).

The R.P.T. Experience

For the last seven years, R.E.T.s who have been granted the R.P.T. designation have been licensed by APEGGA to independently practice engineering within a specified and individualized scope of practice. Within their specified technical areas, the knowledge and judgement of an R.P.T. can equal the expertise and judgement of a P.Eng.; R.P.T.s are not restricted to the application of recognized codes and standards, but may exercise seasoned technical judgment. There are presently about 160 R.P.T.s registered in Alberta, and their typical experience at the time of registration has been approximately 20 years.

The regulatory experience with R.P.T.s during the past seven years has demonstrated that public safety has been well protected by their expertise and their professionalism, and their abilities have been more fully utilized for the benefit of their employers, clients and the public.

In many ways, R.P.T.s are more like limited licence engineers than technologists, and it is proposed to change the name of the R.P.T. designation to "Professional Licencee" to recognize this reality, and to more readily provide them with cross-Canada recognition of their credentials. It is further proposed that Professional Licencees will be members of, and regulated by, APEGGA only, thus eliminating the double fee payment currently required.

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A New Category — Professional Technologist (P.Tech.)

The discussions between APEGGA and ASET recognized that some technologists have considerable expertise in *the routine application of industry recognized codes and standards*, and that in certain circumstances it would be appropriate to permit these technologists to practice independently within a specified scope of practice.

Routine technical procedures require expertise, but they are well-recognized and do not require seasoned judgment about whether those procedures are applicable to a particular project. *Recognized* codes and standards embody engineering principles and procedures which have been thoroughly vetted and accepted by learned technical organizations such as the National Research Council of Canada, the Canadian Standards Association, the American Society of Mechanical Engineers, the American Petroleum Institute, and the National Association of Corrosion Engineers. For example, recognized and routine procedures are embodied by such codes as Part 9 of the Alberta Building Code, 1997 or API Standard 650–Welded Steel Tanks for Oil Storage.

Although members of ASET, the new designation of Professional Technologist (P.Tech.) will be jointly regulated by APEGGA and ASET. The regulatory framework will include joint committees to determine registration and permit to practice requirements, set practice standards, ensure compliance with the legislation, investigate complaints, hear disciplinary cases and appeals, perform practice reviews, and monitor the legislative framework.

The Joint Registration Board will be responsible for assigning each P.Tech. with a specified scope of practice in accordance with applicable legislation and the routine application of industry recognized codes, standards, procedures and practices using established engineering or applied science principles and methods of problem solving.

It is anticipated that applicants for P.Tech. registration will have the C.E.T. or A.Sc.T. designation (or equivalent qualification) and demonstrated significant expertise in their technical area through extensive experience and continuing education and professional development. It is contemplated that the P.Tech. designation will require a minimum of eight years of education and experience.

The straightforward approach to establishing specified scopes for P.Tech.s will be to develop a list of codes and standards that are judged by relevant experts to be recognized and routine in their application. This will be done by the APEGGA/ASET Joint Practice Standards Committee, and the lists could be published and updated from time to time as a Practice Standard document. P.Tech.s would practice within the listed codes and standards relevant to their individual scope of practice. By regulating the P.Tech. area jointly with ASET, APEGGA will ensure that an integrated and consistent approach is taken across the spectrum of P.Tech. practitioners, R.P.T. practitioners and P.Eng. practitioners.

Within their specified scope of practice, P.Tech.s will be able to supervise C.Tech.s, C.E.T.s, A.Sc.T.s, continuing R.E.T.s, and others who are required to practice engineering or geoscience under the professional responsibility of an independent practitioner.

Extending Personalized Professionalism

By bringing technologists under the regulatory framework of the *EGGP Act*, P.Tech.s and C.E.T.s will be subject to all the requirements of personalized professionalism as are now required of P.Eng.s, P.Geol.s, P.Geoph.s, and R.P.T.s. Personalized professionalism is the internal compass which professional members develop by knowing what the right thing is to do for the public interest, and is based on:

- the Code of Ethics
- the Oath that all new Professional Members take when they are inducted into the profession
- the good judgement that Professional Members are expected to exercise in carrying out their technical duties in the public interest
- the obligation that Professional Members have to keep their technical skills current in their field of practice through continuing professional development,
- and, most importantly, knowing when their personal professional limitations are being exceeded and when to seek additional expertise

Extending personalized professionalism to technologists will mean that technologists will better understand and accept their responsibilities to the public and take ownership of those responsibilities.

Summary

The proposed model is designed to provide an effective regulatory structure for all of the professionals practicing in the broad spectrum of engineering and technology. It provides statutory status to ASET, and creates an effective regulatory framework for technologists. It also recognizes that some senior technologists with expertise and experience in performing tasks that fall within recognized and routine codes and standards should be entitled to practice independently, subject to joint regulation by APEGGA and ASET. The model will bring clarity to the different roles which different professionals may perform, thereby allowing Albertans the ability to choose the appropriate person for the task at hand. By bringing two Associations under one Act, the model contemplates a synergistic partnership to further protect the interests and safety of the public.