

Applied Science
Technologists & Technicians
of British Columbia



Technology Professionals: Value to the Public Interest

2011

Annual Report of the Public Representatives

MAY 25, 2012

**Serving on the Council of the
Applied Science Technologists and Technicians of BC**

**Jim Blake, MBA, CA,
Wendy Grant-John, MBA,
John Murphy**

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Council of the Applied Science Technologists and Technicians of BC (ASTTBC)

**Jim Blake, MBA, CA (May 2007 – September 2011),
Wendy Grant-John, MBA (May 2011 – Present),
John Murphy (May 2007 – Present)**

ASTTBC Overview – Professional Regulation of Technology Professionals

The Applied Science Technologists and Technicians of BC (ASTTBC) is a self-governing association of technology professionals including technologists, technicians and technical specialists. Formed in 1958 under the Society Act, ASTTBC was reincorporated in 1985 under the *Applied Science Technologists and Technicians Act (ASTT Act)*, stand-alone legislation governing technologists and technicians.

ASTTBC's Mission Statement:

To serve the public by regulating and supporting Technology Professionals' commitment to a safe, healthy, and sustainable society and environment.

At the end of 2011 ASTTBC registrations totaled 10,217 technologists, technicians and technical specialists. ASTTBC operates with a budget of approximately \$2.5 million. ASTTBC's head office is located in Surrey, British Columbia. ASTTBC is referenced in the *Business in Vancouver* 2011 list of professional associations as the 8th largest in British Columbia by membership size.

Purpose and Scope of the 2011 Annual Report of the Public Representatives

The 2011 Annual Report focuses on ASTTBC initiatives to further serve the public interest by enhancing the professional recognition and practice rights of the technologists, technicians and technical specialists registered and regulated through ASTTBC, and by collaborating with other professional associations.

The Report was developed with input from members of Boards and Committees, Council, members and staff. The Report is an independent statement, i.e. not presented for the approval by ASTTBC Council. Where the Public Representatives are not in accord with statements in the Report the variance is noted.

This Annual Report of the Public Representatives for 2011 was presented during the 53rd ASTTBC Annual General Meeting on May 25, 2012 and will be forwarded to the BC Minister Responsible for the *ASTT Act*, Members of the BC Legislature, BC Members of Parliament, and other interested stakeholders. The Report will be posted to the ASTTBC web site for public access, along with previous Annual Reports of the Public Representatives. A summary of the Report will be included in *ASTT e-NEWS* and *ASTT NEWS*.

Practice Rights of Technologists and Technicians

Certification has evolved as ASTTBC moved from its fledgling days in the late 1950s to a fully self-governing professional association with the *ASTT Act* of 1985. The Association embraced a broad mandate and engaged practitioners in the applied sciences, including architectural, biomedical, bioscience, building, engineering, environmental, geomatics, and information technologies.

The *ASTT Act* broadened the fields in which certification and registration would be granted and reduced the protected titles to two. Since 1985, ASTTBC has certified, registered and regulated two classes: Applied Science Technologist (AScT) and Certified Technician (CTech).

The 2010 Annual Report of the Public Representatives noted that ASTTBC has made significant and steady progress over its more than 50 years in offering professional certification and regulation of technologists and technicians.

The Association has advanced over the years in defining a scope of practice for ASTTBC registrants. With protected rights to title established, the Association dedicated resources to developing and placing within the Association's legislative framework a definition of scope of practice appropriate to the knowledge, skills and abilities of those registered.

The *ASTT Act* defines the 'Objects' of the Association:

“To maintain, improve and increase the knowledge, ability and competence of the members of the association;

“To regulate standards of training and practice of and for its members and to protect the interests of the public;

“To establish, maintain and develop standards of ethics among its members;

“To do all lawful things that are incidental or conducive to the accomplishment of these objects”.

With these intentions, the Association assumed a responsibility to formulate a statement on the areas of practice incidental to professional certification and registration. When the *ASTT Regulations* pursuant to the *ASTT Act* were first adopted in 1985 the Association included a statement on practice:

“A certified member may provide services or carry out work in accordance with his academic qualifications, training and experience in the fields of applied science technology determined by council.”

This statement was adapted over time, in part to coincide with statements adopted nationally. The most recent definition is a much more comprehensive statement:

“A certified member may, in accordance with his or her academic qualifications, training and experience, provide services, carry out work and accept responsibility in an approved discipline for: inspecting, sampling, evaluating, testing, measuring, troubleshooting, servicing, repairing, maintaining, designing, manufacturing, installing, implementing, reporting on, preparing plans and specifications for, or directing the construction, technical inspection, maintenance or operation of, any structure, work or process, that,
i) *Safeguards life, health, property, environment, public interest or economic welfare; and,*

- ii) *Which is accomplished through the application of codes, standards and generally recognized procedures and practices appropriate to the endeavor.”*

This ‘Definition of Scope of Practice’ is current as at the end of 2011.

Guides to Professional Practice was approved by ASTTBC Council to clarify the typical scope of practice of members in a particular discipline.

Given that the *ASTT Act* does not prescribe a restricted field of practice ASTTBC has had to satisfy others that (a) ASTTBC members have a right to independent practice except where practice is restricted; and (b) that ASTTBC members should be recognized and allowed to practice independently in areas in which members are competent. This challenge is one of the most significant and resource-challenged that ASTTBC has had to deal with since its inception, and more notably in the past 20 years.

There is a critical need for the BC Government together with other interested parties to reach agreement on an appropriate scope of practice for ASTTBC members and then to enshrine this in appropriate legislation. In each of the Annual Reports of the Public Representatives this issue has been identified as critical to the interest of the public.

Recommendation: That ASTTBC should, as a priority, endeavor to secure the support of the BC Government and other interested stakeholders for an accepted and legislated area of independent practice for Applied Science Technologists (AScT) and Certified Technicians (CTech).

Collaborating to Define Professional Technologist (PTech)

‘Professional Technologist’ (PTech) was added to the *ASTT Regulations* in 2005 for those Technologists aspiring to an advanced standing and considering independent practice. However, ASTTBC Council preferred to see a national approach in the use of the PTech prior to fully implementing the PTech designation in BC.

With new legislation in Alberta governing the PTech, the ASTTBC Council in 2010 made the decision to implement PTech in 2011. Furthermore, the Council decided it would be best to work with the Association of Professional Engineers & Geoscientists of BC (APEGBC) in order to ensure the most effective application and implementation of this new designation. In 2010, ASTTBC joined with APEGBC to form a special Task Force to consider and make recommendations on the implementation of PTech designation in BC.

In June 2011, the Councils of ASTTBC and APEGBC appointed a PTech Framework Development Group, composed of equal members of both association Councils, to advise on the options and preferred alternative for the development and regulation of the designation Professional Technologist (PTech) in BC.

The Group, co-chaired by ASTTBC President Bill MacPherson, AScT, and APEGBC President Jeff Holm, PEng, FEC, met six times between July and November 2011 to develop a concept for a Professional Technologist that would contribute to public interest and safety, while fulfilling a role that:

- a. is clearly not the role of a Professional Engineer or Engineering Licensee;
- b. will clearly enhance public safety and health;
- c. will be created through third-party legislation and regulation; and
- d. is easily understood by the public.

At the December meetings of the ASTTBC and APEGBC Councils, an interim report was presented that summarized the work of the Group and presented a concept for the development and regulation of PTech. While the initial thought was that the BC model would align tightly with the Alberta model, after careful consideration the BC team decided on a slightly different approach.

The concept was approved in principle by both Councils, as was the undertaking of formal stakeholder consultation in 2012 to provide input to shape the future direction of the PTech concept, including benefits, opportunities and concerns.

The proposed PTech Concept is based on the principle that implementation of a PTech designation in BC will result in improved protection of the public interest. Key Principles upon which the proposed concept is based are:

1. PTech practice addresses a recognized existing problem of public safety
2. a PTech is recognized according to individual competencies (academic and experience)
3. a PTech is a member of and is governed and regulated by ASTTBC
4. PTech areas of practice are articulated and embedded in third-party municipal, provincial or other regulatory third-party legislation. (i.e. not in the Engineers and Geoscientists Act or the Applied Science Technologists and Technicians Act)
5. PTech areas of practice are determined and proposed to third parties by a legislated APEGBC/ASTTBC Joint Board which is embedded in ASTTBC and APEGBC legislation
6. the area of practice for a PTech is not professional engineering but is applied science technology as it pertains to the application of engineering principles
7. PTech practice does not include the field of geoscience
8. practitioners who wish to practise professional engineering in British Columbia must become Engineering Licensees or Professional Engineers; and
9. PTech areas of practice do not prohibit practice by professional engineers.

Recommendation: ASTTBC should continue to collaborate with APEGBC and work with the BC Government to establish Professional Technologist in British Columbia.

Certification and Registration of Technical Specialists

Various regulatory bodies and industry groups approached ASTTBC in the mid-1990s to introduce another classification of technology professional, now known as the 'Technical Specialist'. External parties continue to look to ASTTBC to set standards and protect the public interest through professional certification and regulation.

ASTTBC currently certifies and registers in eight fields, including Building Design, Construction Safety, Fire Protection, House & Property Inspection, Onsite Wastewater, Public Works Inspection, Site Improvements Surveying and Steel Detailing. Four of these Technical Specialist programs are required by law:

- Fire Protection where there are municipal Bylaws requiring certification;
- House Inspection which is governed under the Consumer Protection Act;
- Onsite Wastewater governed under the Sewerage System Regulation; and,
- Site Improvements Surveying exempted under the Land Surveyors Act and regulated by ASTTBC under agreement with the Association of BC Land Surveyors.

In each of the technical specialist programs ASTTBC relied upon the industry to define the required education and training standards and to partner with ASTTBC in establishing professional certification and regulation. The current technical specialist fields and the titles and designations are:

Building Design	Certified Residential Designer Registered Building Designer	CRD RBD
Construction Safety	Construction Safety Officer Trades Safety Coordinator	CSO TSC
Fire Protection	Registered Fire Protection Technician	RFPT
House & Property Inspection	Certified House Inspector Certified Property Inspector	CHI CPI
Onsite Wastewater	Registered Onsite Wastewater Practitioner	ROWP
Public Works Inspection	Certified Public Works Inspector (I - IV)	CPWI
Site Improvements Surveying	Registered in Site Improvements Surveying	RSIS
Steel Detailing	Certified Steel Detailer Registered Steel Detailer	CSD RSD

The 2010 Annual Report of the Public Representatives commended ASTTBC for fulfilling its mandate to serve and protect the public interest in providing technical specialist certification and professional regulation and for excellent progress in evolving professional practice rights for Technical Special Registrants.

In 2011, discussions advanced with BC Construction Safety Alliance with regard to the most fitting home for the Construction Safety Officer Program. As well, a proposal to implement peer reviews/audits for Fire Protection certification was presented. ASTTBC hosted Onsite Wastewater forums to discuss issues and standards of practice, with invitations going out to BC Ministry of Health, BC Onsite Sewage Association, Western Canada Onsite Wastewater Management Association, Environmental Operators Certification Program and APEGBC.

As of December 31, 2011 there were 1889 Technical Specialists registered with ASTTBC.

Recommendation: ASTTBC should consider adding new technical specialist programs based on the needs of business, industry, regulatory bodies, and the public interest. Such programs should be fully sustainable.

Qualified Professional (QP) Recognition for ASTTBC Members

The BC Government and certain regulatory bodies have cultivated the concept of ‘professional reliance’ in many areas in which ASTTBC members are engaged. Through professional reliance, designated professionals are recognized and permitted to carry out certain defined work.

ASTTBC has advanced the professional certification and registration offered by ASTTBC as being worthy of consideration where its members are competent to carry out the work. Professionals so recognized are often described as a ‘Qualified Professional’ or ‘Qualified Person’ (QP). ASTTBC has secured limited rights to independent practice in the following areas:

- Municipal Sewage Regulation
- Riparian Area Regulation
- Landfill Gas Management Regulation
- Oil & Gas Commission – Reclamation Specialist

In addition to this recognition, AScT and CTech are exempted under the Land Surveyors Act from carrying out work related to site improvements surveying. To further define the practice ASTTBC entered into an Agreement with the Association of BC Land Surveyors.

In 2011 ASTTBC reached an agreement with the BC Safety Authority on proposed licensing to be issued by ASTTBC to members doing limited electrical work as restricted by Regulation. The program framework and policies for certification will be in place by summer 2012 with the expectation that the program will be formally launched by the end of that year.

As well, a draft certification policy was developed for certification of Underground Utility Locators in collaboration with the BC Common Ground Alliance. It is anticipated that the program will be launched in 2012.

There is more work to be done to fully enable ASTTBC-registered professionals. Limited rights to independent practice enable ASTTBC-registered professionals to practice within their competencies and in this way more fully utilize their qualifications. This recognition meets ASTTBC's mandate to serve the public interest.

Recommendation: ASTTBC should continue to work with the BC Government and appropriate regulatory bodies as they advance the concept of professional reliance.

Professional Standards, Regulation and Portability of Credentials

Technology Professionals Canada (TPC), which was launched in 2010, marked a new era of collaboration with sister technology associations in Alberta, Saskatchewan and Ontario.

In 2011, TPC completed a nation-wide review of accreditation under a contract with Canadian Standards Association (CSA). The TPC Leadership Council received a report from the CSA on national accreditation. TPC agreed to proceed with implementation of the CSA recommendations and asked the TPC associations from British Columbia, Alberta, Saskatchewan and Ontario to support the proposal to proceed to implement Technology Accreditations Canada (TAC) and develop a new accreditation model for Canada.

A web-based software program – Technology Registrations Canada (TRC) – was developed by ASTTBC over the past three years and was fully integrated with ASTTBC certification and registration at the end of 2011. TRC will assist Internationally Trained Professionals (ITP) in assessing their credentials and becoming registered with ASTTBC. The program will also be used by technology professionals educated in Canada to apply to ASTTBC for certification. TRC is available to ASTTBC's sister associations in Canada.

The Annual Report of the Public Representatives of 2010 commended ASTTBC for continuing to provide leadership in assuring portability of credentials both within Canada and between other countries and Canada.

ASTTBC and the other technology professional associations across Canada had a transferability agreement in place, which had lapsed. Some relatively minor adjustments have been made since the Agreement on Internal Trade (AIT), Trade, Investment and Labour Mobility Agreement (TILMA) and the

New West Partnership Trade Agreement (NWPTA). ASTTBC is committed to ensure full portability of credentials and has stated it will work diligently with the other associations to ensure seamless regulation.

Instruments that support and assist the associations achieve portability include:

- National Technology Benchmark (NTB), adopted by all associations
- International Qualification Databank, a list of the assessment of other country education
- Technology Registrations Canada (TRC), a new database under development to take registrations into electronic mode
- TRC is a resource for Internationally Trained Professionals (ITP) to self-assess and then apply for formal assessment by one of the professional associations
- Canadian Technology Accreditation Board (CTAB) as the national vehicle for assessing technology education at educational providers
- Provincial Accreditation Board terms of reference are being reviewed with a view on alignment
- Council of Registrars meets regularly to share information, recommend policy and process changes and generally learn from each other

The one area warranting further attention is the application and administrative processes where there remains some difference between the professional associations. ASTTBC took a step forward in this by signing an agreement with ASET that indicates the two associations will align professional regulatory policies and processes. (The Annual Report of the Public Representatives of 2009 gives the background on AIT and TILMA.)

Recommendation: 1. ASTTBC should continue to evolve the ASTTBC certification and professional regulatory framework, policies and procedures to align as much as possible with other technology professional associations for the purpose of serving the public interest.

2. ASTTBC should engage with the other technology professional associations to re-instate the 'Transferability Agreement' to ensure continued agreement on key elements of portability of professional registration, in keeping with the Agreement on Internal Trade.

Recognition by Employers of ASTTBC Technology Professionals

As employees, ASTTBC members usually work within a team of professionals, assuming responsibilities appropriate to the norms of the business for whom they are engaged and within their qualifications. Support for professional certification by employers has a significant impact in terms of positive member growth and status as professionals within the applied science and engineering community.

Employers regularly call for ASTTBC certification and registration or eligibility for membership as a condition of employment. Collective agreements reference ASTTBC membership. Employers support ASTTBC membership by paying annual dues and supporting volunteer activities with ASTTBC and ASTTBC member professional development.

ASTTBC has made steady progress in attracting the interest and support of employers for the certification of its Technologists, Technicians and Technical Specialists. ASTTBC registrants enjoy a high degree of recognition as a result of employer support for professional certification and registration.

In 2011, a business plan was developed for the Registered Technology Manager (RTMgr) designation to encourage ASCTs and CTechs involved in supervision, management or leadership in the technology fields to consider registering as an RTMgr.

Recommendation: ASTTBC should further expand its relationship with employers to demonstrate the value of professional certification and continuing professional development to business interests thus, in turn, serving the public interest.

Association Recognition by Industry, Business Associations and Regulatory Authorities

ASTTBC has earned the interest and respect of many organizations with regard to its role as a professional regulating body as well as an organization promoting technology education and careers. While not exhaustive, the following have been identified by ASTTBC as bodies having a positive working relationship with the association. *Being referenced in this list does not indicate a statement of endorsement of ASTTBC by these organizations or the endorsement of ASTTBC of these organizations.*

Professional Associations:

- Association of Professional Engineers and Geoscientists of BC
- Association of BC land Surveyors
- Association of BC Forest Professionals
- BC Society of Landscape Architects
- Building Officials Association of BC
- National Institute for the Certification in Engineering Technologies (USA)
- Planning Institute of BC

Regulatory Authorities

- BC Government (Various Ministries)
- BC Housing
- BC Safety Authority
- Homeowner Protection Office
- Office of the Fire Commissioner

Industry and Trade Associations and Training Organizations

- American Society of Certified Engineering Technicians (USA)
- Asia Pacific Gateway Skills Table
- ASPECT
- BC Chamber of Commerce
- BC Common Ground Alliance
- BC Construction Association
- BC Deans of Technology
- BC Innovation Council and Regional Science & Technology Councils
- BC Road Builders
- BC Science Teachers Association
- BC Technology Industries Association
- Big Little Science Centre
- Building Owners and Managers Association of BC
- Business Council of BC
- Canadian Home Builders Association (BC)
- Canadian Standards Association
- Consulting Engineers of BC
- Economic Development Association of BC
- Electrical Contractors Association of BC
- Immigrant Employers Council of BC

- Independent Contractors and Businesses Association of BC
- Industry Training Authority
- Mechanical Contractors Association of BC
- Small Business BC
- SUCCESS
- Underwriters Laboratories of Canada Inc

Commendation: ASTTBC continues to build upon the strengths of existing relationships for the purpose of serving the public interest through professional certification and regulation of Technologists, Technicians and Technical Specialists and in promoting technology education and careers.

The Public Representatives Serving on the Council of ASTTBC

Jim Blake, MBA, CA (May 2007 - September 2011)

An educational leader with the College of new Caledonia for much of his career, Jim is active in retirement as Chair of the Prince George Airport Authority, Member of the Council of Chairs of Canadian Airport Authorities, Treasurer and Director of The Exploration Place, Science Centre and Museum, and a Director of the British Columbia Aviation Council.

Wendy Grant-John (June 2011 – Present)

Wendy served three terms as Chief of the Musqueam Nation and was the first woman elected as Regional Vice-Chief of the Assembly of First Nations. She has experience as a lay bencher of the Law Society of British Columbia and as a Commissioner of the Pacific Salmon Commission. Wendy received a *Business in Vancouver* Influential Women in Business Award in 2011.

John Murphy (May 2007 - Present)

A leader in technical standards development, regulatory and inspection services, safety testing and certification, John is currently the Engineering Manager for Underwriters Laboratories of Canada Inc. where he has responsibility for Conformity Assessment Services. Prior to joining UL Canada, John was Vice President, Engineering and Standards for the BC Safety Authority.

APPENDIX to Report of the Public Representatives – see Council / AGM Minutes at www.asttbc.org