



An Analysis of Provincial Certification Practices

Technicians and Technologists in Canada

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Final Report – An Analysis of Provincial Certifications in Canada

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1. Project Scope

A number of significant changes have occurred with the Provincial Professional Associations (PPAs) over the course of the last five years. Among them, four Provinces have seceded from the National Council and formed an alliance to create a quality based, more sustainable model for Accreditation; the PPA in Alberta has taken a bold move towards competency based assessment of personnel; the PPA in British Columbia has expanded the scope of work for their constituents and has also broadened the scope of their certifications.

These are all forward looking initiatives that move the PPAs in slightly different directions. With two “National Bodies”, each operating a separate Accreditation system, there emerges a need to revisit how the PPAs might continue to work in harmony to comply with the intent of the Agreement on Internal Trade (AIT).

This project was initiated to examine the registration practices of the PPAs across Canada, to determine:

- Where gaps or discrepancies, if any, exist between the Provinces
- Any unique areas of concern by each Province
- Procedural issues to be resolved between the Provinces
- The appetite for revised Mutual Recognition Agreement

This report is predicated upon the following assumptions:

- A method for determining equivalency between the competency based and qualifications based assessments will be established
- The requirements of standard ISO 17024: *Conformity assessment – General requirements for bodies operating certification of persons* are accepted as best practice
- Financial issues are not a consideration

The identified issues and recommendations in this report are based on an analysis of the published processes and procedures made available by the PPAs. Actual practices were not evaluated.

2. Project Methodology

The initial stage consisted of compiling information on registration practices available through the PPA websites. Subsequently, gaps were identified in the data and interviews were requested with the Registrars in the Provinces.

Newfoundland/Labrador was the only non-Technology Professionals Canada (TPC) Province that provided their perspective in an interview to assist in this research. The lack of participation by the other non-TPC Provinces is somewhat offset by the provision of a “Similarities and Differences” document that had been compiled by the Council of Registrars (COR), identifying a number of areas where practices aligned or diverged across the Provinces.

Interviews were held with registrars from British Columbia, Alberta, Saskatchewan, Ontario and Newfoundland/Labrador. The interviews that were conducted were extremely insightful and contributed significantly to the final recommendations.

PPA representatives from Prince Edward Island responded by email and agreed to respond to a series of questions via email. This report does not include the feedback from this PPA, as the response has not yet been received. An update to this report will be provided upon receipt of that response.

3. Executive Summary:

This report examines the existing processes for certification used by each of the PPAs and identifies gaps and concerns that, in the opinion of the author, have the potential to create impediments to the success of a revised Mutual Recognition Agreement on the transferability of certifications across the Provinces. This report also includes a draft framework for a Mutual Recognition Agreement for use and/or adaptation by the PPAs if so desired.

The success and stability of a Mutual Recognition Agreement is founded on substantially similar processes, systems and measurements, particularly in the area of certifications. There are some differences noted in this report that the author believes to be “somewhat significant” in nature when considering alignment with the standard ISO 17024: *Conformity assessment – General requirements for bodies operating certification of persons*.

Drawn from the interviews conducted, and also inferred from responses contained within the “Similarities and Differences” document compiled by COR, the perception of the Registrars is that the current system for mutual recognition is working satisfactorily, with one or two minor exceptions that will be noted in the body of the report.

Overall, with the exception of Alberta’s move to competency based assessment, the processes for certification of personnel across the Provinces are substantially similar. Where gaps exist, they are primarily in the area of Professional Practice Examinations, small deviations within the Professional Codes of Ethics and discrepancies across the Provinces in the Interprovincial transfer form. The recommendations in this report, if implemented, would reduce or eliminate these discrepancies.

One other issue of note is the lack of consistency in the Professional designations used in each Province. This appears to be managed administratively across the Provinces however has the potential to create some confusion in the market for Technicians and Technologists hoping to relocate to and within Canada.

4. Findings

4.1 Governing Acts

Each Provincial Professional Association (PPA), with the exception of Newfoundland/Labrador, operates under its own Provincial Act. In each case the focus is on public safety, technical competency and ethical behaviour. Each PPA is authorized under their Act to perform the role of Certification Body for the professions of Technicians and Technologists and the requirements are outlined within those Acts.

Even where limited scopes of practice are recognized for certified persons, it is the opinion of the author that the Acts do not present any significant impediment to the mutual recognition of certifications across the Provinces.

4.2 Application data and practical experience requirements

Research indicated that the practical experience requirements are substantially similar across the Provinces. There are no significant issues which indicate the potential for any impacts on mutual recognition.

It should be noted that in the “Similarities and Differences” chart compiled by the Registrars, a consistent deviation occurred across all the Provinces that cited a requirement for three or more references. Each of these Provinces indicated that they would accept two “good” references. The author questions whether the requirement should be amended to reflect consistency across the country and actual practice.

Requirement	BC	AB	SK	MB	ON	QC	NL	NS	NB	PE
Canadian Residency Requirement	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Canadian Work Experience Requirement <i>*note model is different in Quebec – two verifications in year one</i>	Y	N	Y	Y	Y	*	Y	Y	Y	
References <i>*will accept two good references</i>	3*	3*	3*	3	3*	2	3*	2	4*	2
Years of Experience <i>*note model is different in Quebec</i>	2	2	2	2	2	*	2	2	2	2
Experience allowed from Co-op	3-6m	Yes	3-6m	6m	6-12m	Y	3m	No	6m	

4.3 Codes of Ethics

Across the Provinces, the Codes of Ethics are substantially similar with slight changes in wording and the addition of specific issues, for example Saskatchewan references integrity in advertising, and Nova Scotia includes a requirement to refer the client to other professionals should that be in the best interest of the client. These specific issues could be reasonably interpreted under the umbrella requirement of acting with integrity at all times.

It is the opinion of the author that the Codes of Ethics for each Association do not present an issue related to mutual recognition.

4.4 Certification Boards

Although the nomenclature is not consistent across the Provinces, the existence and role of the Certification Board or Board of Examiners is consistent. These Boards perform the decision making role in the acceptance of an applicant for Certification.

It is the opinion of the author that the Certification Board structures do not present an issue related to mutual recognition.

4.5 Certifications: Disciplines and Designations

In analyzing the disciplines across the Provinces, each PPA offers certification within every technical discipline with very few exceptions. This research did not extend to examining the number of certified personnel in each discipline per Province, but the author questions how each certification board finds the technical expertise required to approve applications in every discipline, particularly in the smaller Provinces. As a potential solution to this, the inclusion of a formalized “exchange program” for the sharing of technical experts involved in certification board approval could be considered for inclusion in the Mutual Recognition Agreement.

In some cases, different designations are used for the same certification level across the Provinces. More significantly, in some cases identical designations are used to credential significantly different certification levels.

Each Province has procedures for the recognition of transferees therefore it is acknowledged that in the case of a conflict between the designation issued within the originating Province (eg. P.Tech) and the Province to which the applicant is requesting transfer, the PPA accepting the transfer will have a process for assigning the designation appropriate to their Province. Given this, the author does not believe this presents a significant barrier to mutual recognition, however does carry the potential for confusion in the market.

Chart of Certifications*

Province	C.E.T	C.Tech	A.Sc.T	P. Tech	Alternate Membership
BC		Certified Technician	Applied Science Technologist	Professional Technologist - Engineering (Higher level of experience and education)	Provisional Membership Associate Member Graduate (GradTech) Student Honorary Life Membership
AB	Certified Engineering Technologist	Certified Technician		Professional Technologist - Engineering (Higher level of experience and education)	T.T. (Technician/Technologist in Training) Student Life Retired Temp Unemploy/Leave Life
SK		Certified Technician	Applied Science Technologist		Associate Honorary Student Unemployed
MB	Certified Engineering Technologist	Certified Engineering Technician & Applied Science Technician	Applied Science Technologist		Student Associate
ON	Certified Engineering Technologist	Certified Technician			Associate Graduate Student Retired
QC	TP T.Sc.A			TP T.Sc.A. P. Tech	Student
NL	Technologist (upon request)	Certified Technician	Applied Science Technologist (upon request)	Professional Technologist (equivalent to C.E.T)	Associate Student Honorary Retired
NS	Certified Engineering Technologist	Certified Engineering Technician & Applied Science Technician	Applied Science Technologist		Associate Membership Non-Active Retired Retired Plus Student
NB		Certified Engineering Technician		Professional Technologist (equivalent to C.E.T.)	TGIT Student
PEI	Certified Engineering Technologist	Certified Engineering Technician & Applied Science Technician	Applied Science Technologist		Student Associate Non-Resident Honorary Retired/Life

**This chart represents the Certification designations of Technicians and Technologists. Other Provincial certifications are outside the scope of this study. Note that alternate forms of membership are not eligible for transfer.*

**Although outside the scope of this report, it should also be noted that CCTT offers a designation IntET(Canada) which is outside the scope of PPA certifications. It appears this designation is issued under the authority of an international agreement, rather than the authority of a governmental body.*

4.6 Provision for recognition of foreign or non-accredited credentials

From available information, it appears that the current process for the recognition of foreign trained professionals is substantially consistent across the Provinces. This consists of a method by which the education is evaluated for equivalency, length of Canadian experience, demonstrated proficiency in language, confirmation of codes and standards knowledge and the completion of the Professional Practice exam.

It was noted that the PPAs are not consistent in the “standards” that are used to assess the educational qualifications where the applicant was educated internationally or the programs were not accredited. In many cases, the National Technology Benchmarks are used, in other cases, the International Qualifications Database or Canadian Technology Standards. Alberta has recently developed an independent set of criteria and a competency based approach to assessment. There is the potential for risk that exists in this situation if there is not an effort to ensure the “standards” remain harmonized.

4.7 Professional Practice Examinations

The results of the research indicated that this is the area where there are the most significant differences across the Provinces. Where information was available, there appeared to be minimal differences in the weightings of the questions as they covered Law, Ethics and Practice, however the modality of the examinations, passing grades, number of questions and length of time for completion were significantly different across the Provinces.

A number of larger Provinces mandate three hour written or online, closed book exams with 100 questions in varied formats, while other Provinces have downloadable pdf exams, with 25 questions that are completed and submitted with the application. In addition, pass rates for the exams differ significantly – from a minimum of 50% to a full pass requirement of 100%.

In the existing certification process, the educational requirements coupled with experience and references are the methods by which the technical competency of an applicant is measured. This predominantly qualifications based system is supported by the accreditation of educational programmes to a defined set of benchmarks. The Professional Practice Examination is the final gate used by the PPA to confer certification upon an applicant. Given that this is the area with the greatest discrepancy, it is recommended that this issue be addressed moving forward. Harmonization of the examinations across the PPAs, with provision for Provincial deviations in the areas of Law is recommended.

The author is not privy to the number of complaints or disciplinary actions taken by each Province annually. In an online review of the complaints and discipline processes published by the PPAs, it is apparent that non-compliance with the Codes of Ethics or actions taken by a Technician or Technologist in contradiction to established Law and Practice are the foundations for complaints and any ensuing discipline. If this is the case, a consistent Professional Practice Exam with scenario based questions that confirm understanding of issues related to Ethics and Professional Practice would be an essential part of ensuring that interprovincial recognition of certifications is consistent and reliable.

4.8 Technical Reports

Where a technical report is a condition of certification, the requirements contained within NTB GC-01 have been used to form the basis for the criteria for successful completion. The requirements cited on the websites of the PPAs align very closely with NTB GC-01 and each other.

According to the “Similarities and Differences” document compiled by COR, in most cases, the requirement for a technical report is waived if the applicant has graduated from a technologist program at an accredited college. In the case of internationally trained professionals, most PPAs require a technical report to obtain a technologist certification, except where exceptional circumstances exist. Most PPAs have had no experience with transfers under the Sydney or Dublin Accords.

Discussions with Registrars indicated that there is difference of opinion between the PPAs regarding the acceptance of Technical Reports completed in the college programs based upon the process by which the report is completed. In some cases, Technical Reports are not accepted by the PPA when the report is completed by a team of students rather than on an individual basis. In most cases however, a Technical Report completed at an accredited college meets the criteria for certification.

There is an opportunity for the PPAs to more closely align the requirements for technical reports in all circumstances, however in the opinion of the author, there does not appear to be a significant barrier to mutual recognition in this area.

4.9 Complaints and discipline process by Province

Each PPA has a complaints and discipline process that is supported by a documented appeals process.

It is the opinion of the author that these processes do not present an impediment to the mutual recognition of certifications.

4.10 Certification appeals process by Province

Each Province provides for an appeal if the applicant does not agree with the outcome of the application for Certification. These processes appear to be consistent across the Provinces and, in the opinion of the author, do not present an impediment to mutual recognition of Certifications.

Province	Certification Granting Committee	Appeals
BC	Board of Examiners	ASTTBC Council
AB	Board of Examiners	Appeal Board / Joint Appeal Board
SK	Registrar / Registration Board	Registration Board
MB	Panel of Examiners Certification Board	Written appeal to the Registrar (next steps not clear)
ON	Admissions Committee	Certification Appeals Committee appointed by IETO
QC	Board of Examiners	(Review Committee)
NL	Technical Education Committee (education) Certification / Registration Board (experience)	AETTNL Council.
NS	Certification Board	Certification Review Board
NB	Certification Board	Certification Review Board
PEI	Certification Board / Council	Request for Appeal through Registrar – who arbitrates?

ISO 17024: *Conformity assessment – General requirements for bodies operating certification of persons*, Clause 9.8 requires that any individual involved in the initial decision regarding the certification of an individual is prohibited from participating in the appeals process. Although I was unable to confirm that all Provinces ensure that this potential for conflict is removed, it is documented in a number of the PPA policy documents, and is a best practice in the avoidance of conflict of interest.

5. Identified Issues

Based upon the outcomes of the research, the author has identified the following issues:

- Inconsistencies in the Professional Practice Exams are significant. The number of questions, examination modalities, question formats and timelines for completion are inconsistent, as are the pass/fail rates. It is the opinion of the author that there is not a consistent level of value for the Professional Practice Exam as a condition of certification across the PPAs.
- The Provinces are not consistent in the “standards” that are used to assess the educational qualifications where the programs are not accredited. Alberta has recently developed an independent set of criteria and a competency based approach to assessment. In some cases, the National Technology Benchmarks are used, in other cases, the International Qualifications Database or Canadian Technology Standards. The risk that exists in this scenario is that as the different sets of standards are updated, they may not remain consistent with each other without an integrated process and concerted effort to ensure harmonization.
- Alberta is unique among the Provinces in its approach to the measurement of competency as a condition of certification. It is the understanding of the author that the competency

profiles developed in Alberta are more rigorous than the National Technology Benchmarks. The potential exists under the existing process that Alberta may be obligated to award certification to a transfer applicant that would not be successful as an applicant had they applied initially in Alberta.

- The Interprovincial Transfer Form previously approved by COR is not being used consistently across all Provinces. Saskatchewan uses a significantly different form.
 - *It is noted that a great deal of information is requested of the transferee already exists within the records of the originating PPA. This seems to put an unnecessary burden on the applicant, when records could be transferred between Provinces upon the request for transfer. This is merely an observation related to customer service given that certification is voluntary.*
- Although not an inconsistency in practices, it is noted that a consistent process for renewal certification of personnel is lacking. ISO 17024: *Conformity assessment – General requirements for bodies operating certification of persons*, Clause 9.6 requires that there is established criteria and timelines for the re-certification of personnel. In many cases this can be as straightforward as providing evidence of continuing education in a technical field, as now required by the PPAs in Alberta and British Columbia.

6. Summary and Recommendations

This author has completed the research project as defined and findings indicate that although the Registrars believe that the current system for Interprovincial transfer is working in a satisfactory way, there are opportunities for improvement in the alignment of processes, documents and measurement practices.

Often, signatories to a Mutual Recognition Agreement have provisions for peer audits to ensure that the standards and procedures upon which the agreement is based are being followed. In the absence of this practice, assured consistency in measurement criteria and the agreed use of shared forms and processes is critical to ongoing confidence, particularly when the number of signatories is large, and in this circumstance, somewhat fragmented.

As a result of the research conducted, this author recommends:

- The creation of a committee to develop a National Professional Practice Exam question bank, examination structure, evaluation criteria and weightings for Ethics and Practice. This databank will be shared amongst the PPAs, who will augment the content with the agreed upon weighting of the Provincial Law and Regulatory sections and administer the examinations. Best practice suggests the development of 3x the number of questions to be issued in each weighted category to reduce the possibility of duplicates in a re-write situation.
- A collaborative project to amend and harmonize the existing Interprovincial Transfer form(s) and process. Recommended amendments include:
 - Permission from the applicant for personal information to be shared between the originating Province and the applicant Province

- Attestation of a review and understanding of the Laws and Regulations of the Province to which they are requesting transfer in addition to the statement of compliance
 - An agreement between the PPAs to share the applicant's relevant information rather than requiring the applicant to provide duplicate information to achieve transfer
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- The harmonization of certification designations across the country. This should be supported by a defined timeline for professionals to discontinue the use of superseded designations and adopt the consistent designations nationally.
 - A provision contained within the new Mutual Recognition Agreement to ensure that continual improvement practices are undertaken collaboratively.

A draft Mutual Recognition Agreement document is included as Appendix A.

Appendix A

Draft

Mutual Recognition Agreement of Provincial Certifications of Technicians and Technologists in Canada

(to supercede the National Transferability Agreement dated 2004 – the basis for this document)

Participants

This agreement is between the Provincial Professional Associations (PPAs) for Technicians and Technologists in Canada:

- Applied Science Technologists & Technicians of British Columbia (ASTTBC)
- The Association of Science and Engineering Technology Professionals of Alberta (ASET)
- Saskatchewan Applied Science Technologists & Technicians (SASTT)
- Certified Technicians and Technologists Association of Manitoba (CTTAM)
- Ontario Association of Certified Engineering Technicians and Technologists (OACETT)
- L'Ordre des technologues professionnels du Québec (OTPQ)*
- Association of Engineering Technicians and Technologists of Newfoundland and Labrador (AETTNL)
- New Brunswick Society of Certified Engineering Technicians and Technologists (NBSCETT)
- Society of Certified Technicians and Technologists of Nova Scotia (TechNova)
- Island Technology Professionals (ITP)

**The level "certified technician" is not recognized in the Province of Québec therefore this agreement applies only to certified technologists when requests for transfer to Québec are processed*

Purpose

For the benefit of the Profession, the PPAs recognize a need for a Mutual Recognition Agreement to facilitate the interprovincial transfer of certified members who are professional Technicians and Technologists.

This agreement provides for a commitment between the PPAs to continue to harmonize and improve requirements and processes for the certification of members to ensure that the competencies and capabilities of certified Technicians and Technologists remain substantially similar across the Provinces.

This agreement also provides for a commitment between the PPAs to collectively mediate appeals in an expedient fashion, thereby reducing the potential for lengthy processes as outlined under the Agreement on Internal Trade (AIT).

Provisions for Recognition

It is agreed between the PPAs that an application for transfer by a certified member of one PPA to another PPA will be accepted at an equivalent certification level, providing:

- The originating PPA has verified and certified the transfer application and has forwarded a copy of the applicant`s certification records and other relevant data to the PPA to which the applicant is requesting transfer,
- The discipline of registration is recognized by the PPA to which the applicant is requesting transfer, and
- The applicant agrees to fulfill any applicable Provincial examination requirements within (*an agreed upon timeframe*).

It is also agreed that where a transfer cannot be accomplished at an equivalent level or discipline, every effort will be made to complete the transfer at an alternate level or discipline. If such transfer cannot be realized, the PPAs agree to follow a mutually agreed upon review/appeal process.

Commitment to Continual Improvement

It is agreed between the PPAs that collaborative attempts will be made to:

- Achieve the harmonization of designations for Technicians, Technologists, Applied Science Technologists and Professional Technologists across the PPAs
- Harmonize the content, weightings and length of the Professional Practice Exams across the Provinces
- Achieve consensus on a provision for recognition of competency based assessments and qualifications based assessments across the Provinces
- Ensure that the technical requirements and processes for certification of members are revisited collectively and on a regular basis to ensure ongoing harmonization is achieved and maintained, including but not limited to:
 - Recognition of international workers
 - Experience requirements
 - Language requirements
 - Shared forms and documents
 - Appeals / Dispute Resolution
 - Discipline and Enforcement
 - Technical benchmarks and outcomes