ASTTBC TECHNOLOGY PROFESSIONALS

QUALIFIED. REGISTERED. ACCOUNTABLE.

ONSITE WASTEWATER CERTIFICATION BOARD (OWCB)

CERTIFICATION POLICY

NOVEMBER 26, 2015

APPLIED SCIENCE TECHNOLOGISTS AND TECHNICIANS OF BRITISH COLUMBIA (ASTTBC)

PREFACE

This policy approved by the ASTTBC Council on November 26, 2015 is issued to the Onsite Wastewater Certification Board (OWCB) to serve as the policy and criteria for setting certification standards and processing applicants for certification as Registered Onsite Wastewater Practitioners (ROWP).

DISCLAIMER

ASTTBC Directors, employees, officers, volunteers and the duly appointed members of the Onsite Wastewater Certification Board (OWCB) are responsible for administering the policy and procedures. Granting of ASTTBC certification to an individual infers that the individual has satisfied the requirements and minimum standards described in this policy.

ASTTBC does not accept liability for any errors or omissions that may arise as a result of the services or work performed by an individual certified by the ASTTBC OWCB or for the consequences of any actions taken by registered members and no legal proceeding for damages may be commenced or maintained against the Directors, employees, officers or volunteers of the association because of anything done or omitted in the performance or intended performance of any duty under the ASTT Act, or in the exercise or intended exercise of any power under that Act.

www.asttbc.org

CHRONOLOGY OF POLICY REVISIONS

Sep. 27, 2007: Original approved by Council
Nov. 15, 2007: Revised Sections 7.4, 7.6, 10
Feb. 19, 2009: Revised Section 7.6
May 21, 2009: Revised Sect.1.6, 7.4, 7.6, 8, 12
Sep. 23, 2009: Revised Section 7.1, 7.2
Jan. 28, 2010: Major revision
Mar. 25, 2010: Revised App. A, B, C, E, G, H, I
May 27, 2011: Major revision
Sep. 29, 2011: Revised Section 6.2 and 7.11
Dec. 07, 2011: Revised Appendix J and K
Sep. 27, 2012: Major Revision
Nov. 26, 2015: Major Revision

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1.0 Authority of the Certification Board

1.1 Authority to Certify and Register

1.1.1 The ASTT Act and Regulations, R.S.B.C. 1996, c.15, specifies that ASTTBC has the authority to certify and register as Technical Specialists individuals that achieve the certification standards and criteria set by the respective Certification Boards and approved by ASTTBC Council.

1.1.2 Under the British Columbia Health Act, R.S.B.C.1996, c. 179, section 8, ASTTBC is authorized to issue a certificate of registration attesting that the holder is a competent registered practitioner as defined in the Sewerage System Regulation (SSR).

1.1.3 The ASTTBC Council has authorized the Onsite Wastewater Certification Board (OWCB) to administer the process of establishing standards, assessing individual applicants and issuing a certification of registration to individuals that achieve the standards and criteria specified in this policy.

1.1.4 An individual certified and registered by the OWCB as a Registered Onsite Wastewater Practitioner (ROWP) is recognized under the Sewerage System Regulations (SSR) as an Authorized Person (AP) to provide onsite wastewater services within the scope of practice for which the ROWP is certified and continues to be an ASTTBC member in good standing.

1.1.5 ROWPs are to follow the BC Standard Practice Manual. Where deviations from BC SPM non-critical standards are made, these must be clearly identified and explained within the design rationale and only under circumstances where full compliance with the BC SPM is not possible. Where deviations from critical standards are necessary, the ROWP must seek guidance and documented support from a qualified Professional or refer the project to a qualified Professional.

1.1.6 Where a ROWP utilizes a standard other than the current BC SPM, they must provide a rationale for this decision and demonstrate that the alternate standard of practice is a recognized practice standard resulting in a system having an equal to or better performance level than by using the BC SPM. As with any deviation from the BC SPM or use of alternate standards, the burden of proving diligence rests upon the ROWP.

1.1.7 Deviating from the SPM standards for planning, installing and maintaining onsite wastewater systems will increase ROWP exposure to liability. Non-compliance with the SPM is a key consideration in ASTTBC Practice and Compliance disciplinary or other practice review process. The ROWP Practice Guideline presented in Appendix 2 is an integral part of the Certification Board Policy and applies to all ROWPs.

1.2 Purpose of the OWCB

The OWCB is established for the purpose of:
1.2.1 Certifying individuals that have applied for certification to register as a ROWP.

1.2.2 Submitting for Council approval the certification standards for ROWPs.

1.2.3 Recommending qualified individuals to be Mentors, Field Trainers, and Field Assessors (Appendix 3)

1.2.4 Recommending to the ASTTBC Accreditation Board (AB) the names of individuals to participate on accreditation teams and the approval of AB reports for the accreditation of Onsite Wastewater training programs.

1.2.5 Submitting to the ASTTBC Council the names of Individuals recommended to be appointed to the OWCB.

1.2.6 Recommending to Council any Changes in the OWCB Policy.

1.2.7 Recommending changes to the Practice Guidelines and other matters related to the practice of Authorized Persons.

1.3 Composition of the OWCB

1.3.1 The OWCB shall consist of a maximum of 12 people appointed annually by Council.

1.3.2 The members of the OWCB shall have experience commensurate with their appointment and include:

- A minimum of seven members with designation as ROWPs certified in various disciplines (see section 2.0) plus;
- A minimum of one non-ROWP appointed from outside the ROWP membership and not directly connected to ASTTBC plus;
- One representative of the Provincial Ministry responsible for the Sewerage System Regulation as a non-voting observer.

1.3.3 Members of the Board shall be recruited and appointed in accordance with the ASTTBC Terms of Office for Board Members (see Appendix 8).

1.3.4 The Registrar or designate shall act as Secretary to the OWCB and is responsible for the proper and appropriate application of the policy by the Board.

1.4 Responsibilities of the OWCB

1.4.1 The OWCB when assessing applications for certification may:

a) Approve an application for certification or;

b) Refuse an application for certification or;

c) Defer the approval of the application subject to one or more of the conditions in 1.4.2

1.4.2 The OWCB may, at its discretion, require an applicant:

1. To pass one or more examinations;
2. To obtain more experience of a kind satisfactory to the Board for a period set by the Board;
3. To improve competencies by pursuing further education or training, self-study, mentorship, field training, supervised on-the-job work experience or any other means acceptable to the Board.
4. To achieve any other requirements, as may be reasonably determined by the Board.

1.4.3 The Registrar or designate shall inform the applicant in writing any decision made by OWCB. If the decision made by the OWCB is to refuse or defer certification the applicant shall be informed of the reasons.

1.4.4 Subject to the approval of the ASTTBC Council, the OWCB shall establish and implement policies and procedures relating to:

1. Competency-based standards for certification
2. Work experience requirements
3. ROWP Practice Guidelines

1.4.5 The OWCB shall periodically review its policies and recommend changes to the ASTTBC Council.

1.4.6 The OWCB is responsible for consistency of the applicant certification process including assessment of competencies compared to the certification standards and the assessment of relevant work experience.

1.5 Meetings and Quorum

1.5.1 The OWCB shall meet at such times, at such places and by any means of electronic conferencing as may be deemed necessary.

1.5.2 The minimum number of OWCB members present for a quorum is four. Attendance may be in-person in the meeting room or by electronic conferencing as per 1.5.1.

1.5.3 OWCB decisions shall require a simple majority of the members present at the time of the vote. In case of a tie vote, the Chair shall have the deciding vote.

1.5.4 OWCB shall select and authorize qualified ROWPs to assess applications for certification.

1.5.5 The Chair shall invite any guest required to be present at an OWCB meeting. Guests of the Chair shall attend only for matters for which they are required and shall not vote. Guests shall be required to sign the ASTTBC confidentiality policy.

1.6 Expenses

1.6.1 Properly authorized travel, subsistence, and meeting expenses for members of the OWCB shall be reimbursed in accordance with ASTTBC financial policy.

2.0 Certification and Registration Categories

2.1 Planner

2.1.1 As specified in the SSR, an individual certified as a Planner shall be competent in assessing site conditions and establishing the typical strength and quantity of wastewater to be treated that will determine the type of system required. The individual certified as a Planner shall be competent in planning a sewerage system for servicing domestic strength sewage wastewater using a Type 1 or Type 2 treatment method for daily design flow of domestic sewage less than 9,100 liters. To provide services as an Authorized Person (AP) Planner a ROWP must be certified and registered in the Planner category before providing planning services.

2.2 Installer

2.2.1 As specified in the SSR, an individual certified and registered as a ROWP Installer, shall be competent to install a sewerage system, in accordance with the SPM and Filing documents prepared by an Authorized Person and registered as received by the relevant Health Authority.

To provide services as an installer a ROWP must be ASTTBC certified and registered in the Installer category.

2.2.2 An Installer may be certified for installing Type 3 systems based on the requirements specified in sections 3.2, 3.3.1, and 5.3 of this policy.

2.3 Maintenance Provider

2.3.1 As specified in the SSR, an individual certified as a Maintenance Provider shall be competent in monitoring and maintaining a sewerage system in accordance with the Standard Practice Manual and the ROWP Practice Guidelines. To provide services as a Maintenance Provider a ROWP must be certified and registered in the Maintenance Provider category.

2.3.2 A Maintenance Provider may be certified by the OWCB to provide service for Type 3 systems based on the requirements specified in sections 3.2, 3.5.1, and 5.4 of this policy.

2.4 Private Inspector

2.4.1 To provide services as an inspector a ROWP must be certified as a Residential or Commercial inspector before providing inspection or assessment services.

2.4.2 The OWCB shall certify qualified ROWPs in one of the following categories of Private Inspector:

2.4.3 Inspector – Residential

A ROWP conducting residential inspections shall achieve the competencies specified in 3.6 and experience specified in 5.5 to inspect residential sewerage systems using a Type 1, 2 or 3 treatment method for daily sewage flows less than 9,100 liters.

2.4.4 Inspector – Commercial

A ROWP conducting commercial inspections shall achieve the competencies specified in 3.6 and experience specified in 5.5 to inspect a commercial sewerage system, using a Type 1, 2 or 3 treatment method for daily sewage flows less than 22,700 liters.

2.5 Retired

2.5.1 A ROWP in good standing with ASTTBC, who has reached the age of 55 or older, and has decided to become non-practicing or to provide limited works and services per the ASTTBC Retirement Policy may declare retirement as further described in Appendix 7.

3.0 Certification Criteria

3.1 Basic Requirements

The minimum basic requirements for all applicants to be eligible for ROWP certification are:

3.1.1 To be a Canadian citizen, permanent resident or have a valid visa to live and work in Canada. Two pieces of government issued identification (ID) are required of which at least one piece shall be a photo ID.

3.1.2 Proof of secondary school completion or equivalent as described in Appendix 10.

3.1.3 English language competency to a minimum of level 7 for speaking, listening, reading and writing on the Canadian Language Technology Benchmarks test of English or equivalent on other standard tests of English competency.

3.1.4 Successful completion of the ASTTBC Professional Practices and Ethics (PP&E) exam.

3.1.5 Applicants with a criminal record for which they have not been pardoned must write a confidential letter to the Registrar explaining past criminal offences. An official pardon negates the need to declare a previous criminal offence. ASTTBC reserves the right to request an applicant to provide, at the applicant's cost, a criminal record check. An applicant refusing to comply with conditions described in 3.1.4 shall explain in writing the reasons for refusal to the Registrar who will submit the matter to the Practice Review Board (PRB).

3.1.6 Payment of the non-refundable application fee to ASTTBC.

3.1.7 The applicant is responsible for any costs such as photographs, transcripts, official translation of documents, and other costs that may be incurred to prepare and submit the application.

3.2 Competencies Required for All Categories

3.2.1 Certification in any category requires satisfactory achievement of the common core competencies as described in sections1.0, 2.0, and 3.0 of Appendix 1. Satisfactory achievement of each competency requires the applicant to demonstrate or provide evidence that they have achieved a minimum of 80% of the indicators describing each competency.

3.3 Planner-Specific Competencies

3.3.1 Successful achievement of the competencies specified in Appendix 1, part 4.0.

3.4 Installer-Specific Competencies

3.4.1 Successful achievement of the competencies specified in Appendix 1, part 5.0.

3.5 Maintenance Provider-Specific Competencies

3.5.1 Successful achievement of the competencies specified in Appendix 1, part 6.0.

3.6 Private Inspector- Specific Competencies

3.6.1 Successful achievement of the competencies specified in Appendix 1, part 7.0.

4.0 Criteria for Assessing Applications

4.1 Competency-based standards

4.1.1 The OWCB and approved subject matter expert assessors shall evaluate applications to determine if the applicant has achieved the competencies required for the selected category and as specified in Appendix 1.

4.1.2 The applicant shall provide details describing when, where, and how the competency indicators were achieved.

4.2 Documented Evidence of Competencies

4.2.1 The OWCB shall recognize education qualifications that are documented and substantiated through evidence such as original transcripts of marks, diplomas and certificates.

Upon request of the applicant, original documents submitted to ASTTBC will be returned to the applicant.

4.2.2 The OWCB may recognize sworn affidavits for documents that cannot be produced.

4.2.3 The applicant is responsible for costs incurred to obtain and submit the required documentation in English.

4.3 Prior Learning Assessment and Recognition (PLAR)

4.3.1 An applicant requesting PLAR in lieu of education transcripts may prepare and submit a portfolio describing or demonstrating how the learning was achieved.

4.3.2 Applicants are required to document where, when and how they achieved education equivalent to the requirements specified for certification.

4.3.3 An applicant may submit evidence of samples of their work demonstrating knowledge and skills substantially equivalent to what would be achieved through taking accredited courses or an education program.

4.4 Structured Interview

4.4.1 The OWCB may appoint Board members, subject matter expert assessors or other qualified ASTTBC members to interview an applicant. The purpose of the interview is for the applicant to provide additional information supporting their application or to respond to specific questions or conditions set by the OWCB.

4.4.2 The Registrar or designate will chair the interview as a non-voting member of the interview committee. The committee will consist of the Chair plus a minimum of two and maximum of four subject matter experts. A written report and recommendations resulting from an interview shall be submitted to the Chair of the OWCB within 10 working days of the interview.

4.5 Third-Party Validation of Information

The OWCB may select and request one or more third party individuals to confirm or validate information submitted by an applicant and or references named in the application.

4.6 Notification of Upgrading Requirements

4.6.1 The OWCB shall notify in writing all applicants of the competencies achieved and any requiring improvement.

4.6.2 A signed letter agreeing to the ASTTBC Privacy Policy and authorization to send electronic communications.

4.6.3 Within 6 months of being certified the ROWP shall undergo a Practice Assessment Review (PAR).

4.7 Applications in Abeyance

4.7.1 Applicant files will be put into abeyance if the applicant has failed to meet application completion requirements within a period of two years.

4.7.2 The Registrar shall notify affected applicants of the status of their file and permit a request for file reactivation, provided that the applicant satisfies the Registrar that the outstanding application requirements will be fulfilled within a period of six months. Failure to notify the Registrar for an extension request, or to meet the six-month extension requirement, will result in the application file being put into permanent abeyance. Files put into permanent abeyance will require an applicant to re-submit a new application should they wish to apply at a future time.

5.0 Work Experience Requirements

5.1 Basic Essential Experience

5.1.1 All applicants are required to submit a career log describing relevant work experience. The type of work considered relevant and acceptable includes but is not limited to working as a helper or assistant to a ROWP or Authorized Person preparing plans, installing systems, maintaining or inspecting onsite wastewater systems.

5.2 Planner Type 1 and 2 systems

5.2.1 The Applicant shall submit evidence of preparing plans for a minimum of three onsite wastewater systems of which one must be a pressure distribution system. The work submitted must be in full compliance with the SSR, the SPM and the OWCB Policy. If the plans are to be filed with the Health Authority they must be verified, stamped and filed by an Authorized Person.

5.3 Installer

5.3.1 Certification for installing Type 1 and 2 systems requires the applicant to submit evidence of work done under the supervision of an Authorized Person for installing a minimum of three onsite wastewater systems of which one must be a pressure distribution system.

5.3.2 Certification for installing Type 3 sewerage systems requires ROWP certification to install Type 1 and 2 systems and evidence of installing a minimum of three Type 3 systems under the supervision of a qualified professional.

5.4 Maintenance Provider

5.4.1 Certification as a Maintenance Provider requires evidence of work completed by the applicant while under the supervision of an Authorized Person (AP) for maintaining onsite wastewater systems. The applicant is required to complete maintenance on a minimum of five systems of which at least one must use pressure distribution and one must use type 2 treatment.

5.5 Private Inspector

5.5.1 Certification as an Inspector requires evidence of inspections conducted under supervision or during Field Training that include residential gravity and pressure distribution systems as well as treatment plants and processes.

5.5.2 Records of each inspection consistent with all applicable Inspection Guidelines as per the Practice Guidelines (see Appendix 2) shall be submitted.

5.5.3 A Career Log that shall include the date, location, type of system, degree of involvement by the applicant, and the name of the ROWP certified as Inspector or other Authorized Person shall be submitted. Digital photographs or video may be referenced, appended or linked to the career log.

5.6 Referees and References

5.6.1 Applicants shall provide the names, designations and contact information for a minimum of three referees. The referees shall be able to comment on the technical abilities, judgment, work history, duties, responsibilities, quality, accuracy, attitude and character of the applicant.

5.6.2 A minimum of one of the referees shall be an Authorized Person in good standing in the onsite wastewater specialty for which certification is requested.

5.6.3 ASTTBC shall communicate with the referee(s). Any information provided by the referees shall be retained by ASTTBC in strict confidence, except as required by law, for administrative purposes.

5.7 Mentoring, Field Training and Field Assessment

5.7.1 ASTTBC policy presented in Appendix 3 applies.

5.8 Practice Assessment Review (PAR)

5.8.1 For purposes of assessing new applicants, or for certification in a new endorsement, the PAR policy presented in Appendix 4 shall be equivalent to a Field Assessment as described in 5.7 above.

6.0 Transfer

6.1 Transfer Under AIT or TILMA

6.1.1 Under the Federal Agreement on Internal Trade (AIT) and the BC – Alberta Trade, Investment and Labour Mobility Agreement (TILMA), ASTTBC must accept applicants currently authorized to practice as onsite wastewater practitioners or equivalent in other Canadian provinces or territories. ASTTBC Council has authorized the Registrar to administratively process applications for ASTTBC registration under the TILMA or AIT.

6.1.2 The applicant shall complete and submit to ASTTBC a Transfer Application request form and payment of the processing fee.

6.1.3 The authority in the Province from which the transfer is being made shall issue proof of certification or registration in the province of origin as an onsite wastewater practitioner or equivalent in the corresponding registration categories.

6.2 Jurisprudence Examination

6.2.1 Applicants requesting transfer from another province shall be required to successfully complete a jurisprudence examination.

6.2.2 The jurisprudence examination will be on the ASTT Act and Regulations, Code of Ethics, the BC Ministry of Health Sewerage System Regulation (SSR) and the applicable version of the BC Sewerage System Standard Practice Manual (SPM).

6.3 Practice Assessment Review Upon Transfer

6.3.1 All ROWP applicants from BC or transferring in from another province shall undergo a Practice Assessment Review (PAR) as described in the PAR policy presented in Appendix 4.

7.0 Appeals

7.1 An applicant wishing to challenge the OWCB decision has the right to appeal within thirty days of notification. The appeal shall be addressed to the Registrar and describe the reasons why the appeal should be considered. Any additional documentation or evidence to substantiate the reason for the appeal shall be submitted to the Registrar.

8.0 Reinstatement of Cancelled Registration

8.1 Conditions for Reinstatement of Registration

8.1.1 A former ROWP that has been cancelled or removed from the Register for three or more consecutive years from the date of termination shall:

Complete an application for reinstatement.

Submit an up-dated resume that includes details of professional development and work history since the original registration was granted.

Provide contact information for 3 technical referees as described in 5.6.1 to 5.6.4.

8.1.2 Successfully complete examination(s) for each requested endorsement(s).

8.1.3 A reinstatement fee is applicable as per Council-approved schedule of fees.

8.1.4 Pay the pro-rated dues for the current fiscal year. There is no requirement to pay dues for the date of cancellation to the reinstatement date.

8.1.5 The Registrar may waive or vary any or all of the requirements stipulated in 8.1.

8.2 Notification of ROWP Members Cancelled or Reinstated

8.2.1 Registration Staff shall advise the OWCB of the names and dates of cancellation and reinstatement of ROWPs

8.2.2 Staff shall enter the name and certification endorsements on the Registration list posted on ROWP section of the ASTTBC website.

8.2.3 The Registrar shall notify the Regional Health Authorities of the names and registration number of any ROWP that is cancelled or otherwise no longer a member in good standing.

8.2.4 Reinstated members shall retain or keep the ROWP member number that was previously assigned.

9.0 Continuing Professional Development (CPD)

9.1 As per the ASTTBC CPD Policy (see Appendix 5) all ROWPs shall maintain their competency through continuing professional development.

10.0 Entitlement and Use of Stamp

10.1 Entitlement to a Stamp

10.1.1 A ROWP has the right to be issued a stamp as specified in the ASTTBC Act and Regulations. The right to use the stamp is a privilege granted to ROWPs by ASTTBC under the ASTT Act and the privilege can be removed if not used in an ethical or professional manner.

10.1.2 Stamps are not transferable or useable by anyone at any time other than the individual to whom they were issued and remain the property of the ASTTBC. Individuals who cease to be ROWPs must immediately return the stamp to the ASTTBC.

10.1.3 The charge for a stamp is a lease fee for an indefinite period, provided the ROWP

remains in good standing with ASTTBC. The stamp remains the property of ASTTBC and must be returned promptly at the request of the Registrar of ASTTBC.

10.2 Use of Stamp

10.2.1 Use of the stamp is protected under the Regulations of the Applied Science Technologists and Technicians Act. The stamp can be used only by a ROWP that is an ASTTBC member in good standing.

10.2.2 The Stamp may only be affixed to documents prepared by the ROWP or prepared under their direct supervision. Use of the stamp is strictly limited to documents describing work or containing information that is within the scope of practice of the member.

10.2.3 The stamp must be applied in a clear and legible manner as further described in the ROWP Practice Guidelines (see Appendix 2). The normal signature of the ROWP must be clearly shown in the space provided. The use of initials without surname is not allowed. The date the stamp is affixed to the document and the signature shall be clearly legible.

11.0 Storage of Files

11.1.1 The Registrar shall maintain for five years the complete file of a ROWP that has been cancelled for non-payment of dues, has resigned or is deceased.

11.1.2 An application shall be cancelled if the applicant has not responded to ASTTBC requests for information within two consecutive years. The applicant will be notified of the cancellation and that the application form and all supporting documents will be destroyed.

12.0 Confidentiality, Freedom of Information and Protection of Privacy

12.1.1 Applications are treated as confidential documents insofar as is practical. Access to them is privileged to ASTTBC Registration Staff, the Board and designated File Reviewers, or others authorized by the Registrar. In exceptional circumstances the file may be disclosed, on a confidential basis, to external audit teams.

12.1.2 An applicant, or registrant, may apply to the Registrar for an appointment to view their file (excluding references) during regular office hours. If refused, they have the right of appeal, within 30 days, to the Council of ASTTBC.

12.2.3 ASTTBC Council authorizes the release of files for review by the applicant during working hours. If the Registrar has cause to refuse, the matter shall be referred to Council.

APPENDICES

Appendix 1: Competency-based Certification Standards

7 Competency Clusters, 40 Competencies, 189 Indicators

No.	Competencies	To demonstrate achievement of each competency the applicant must be able to explain or describe how to:
1.0	**Apply fundamental occupational skills**	
1.1	Maintain a professional work ethic	1. Conduct and apply ASTTBC Code of Ethics and Practice Guidelines. 2. Apply general principles of professionalism, diligence. 3. Advocate best practices, promote regulatory compliance.
1.2	Employ effective business practices	1. Obtain written declarations from owners to confirm usage information relevant to system design. 2. Provide written quotes with fixed pricing or expected range of pricing. 3. Prepare written contracts describing the service you will provide and expectations of the client. 4. Use effective printed document and electronic data filing systems including backup to maintain records for a minimum of 15 years.
1.3	Use effective interpersonal skills	1. Apply conflict resolution methodologies. 2. Describe effective behaviour in organizations. 3. Use interpersonal skills to define expectations and agreements with clients and owner education.
1.4	Apply effective communication skills	4. Complete the general competencies for verbal and written English literacy suited for a Canadian technical workplace. 5. Apply effective techniques for active listening, questioning strategies and interview techniques. 6. Use communication skills to define expectations and agreements with clients and to inform owners of system functions, operating and maintenance instructions.

1.5	Apply math and science concepts	1. Apply basic math concepts including: a. Decimal, fraction and percentage expressions. b. Order of arithmetic operations. c. Exponential functions. d. Logarithms. e. Rounding and significant figures. 2. Apply metric and imperial systems of measurement: a. Convert linear, volume and pressure variables from metric to imperial systems. b. Interpret specifications and regulatory requirements that are expressed in systems of measurement. c. Prepare specifications for onsite systems using the metric system. 3. Interpret and create drawings using linear scales on drawings and sketches. 4. Use expressions of slope to measure and report site topography and to specify constructed features (e.g. grade of piping, infiltrative surfaces, cover soil, etc.). a. Percentage (rise/run). b. Ratio (run:rise). 5. Calculate volume: a. Determine volume of existing tanks. b. Estimate volume of excavations, volume of imported sand media and other aggregates, including bulking and settling estimates. 6. Use differential levelling techniques to determine elevations in the field, establish benchmarks and confirm elevations of constructed features. 7. Apply fundamentals of Geomatics: a. Interpret Dominion Land Survey methodology (range, township etc.). b. Use geodetic system/elevations. c. Interpret/report geographic coordinates (i.e. latitude, longitude). d. Interpret magnetic declination to convert compass bearings in the field to 'true' bearings on drawings and vice versa. 8. Interpret basic parameters for sewage and effluent characteristics, including total suspended solids, biological oxygen demand, oil and grease quantities, mass loading.
1.6	Perform basic surveying measurement	1. Select and use measuring tools per industry practices 2. Determine adequate dimensions in the field to support drawings and reports. 3. Establish suitable reference points in the field to convey specifications and facilitate job control and layout. 4. Use basic GPS equipment to identify and report geographic coordinates. 5. Use basic survey instruments to identify horizontal and vertical alignments, or to construct features as per specified horizontal and vertical alignments including the following instruments: a. Measuring tapes. b. Hand held compass. c. Hand held clinometer. d. Rotary laser level. e. Basic dumpy level (i.e. builder's level/transit).

1.7	Use engineering drawings	1. Interpret and create plan, section, elevation, profile views. 2. Create drawings by hand, to scale, with regard to basic drafting conventions (CADD competencies are optional). 3. Use scale systems to create drawings to scale or to identify dimensions in the field from scale drawings. 4. Use common terminology, abbreviations and symbols used for civil engineering drawings and sewerage system drawings. Examples include: bench marks (BM) reference points (RP), catch basin (CB), property line (PL), monuments (Mon), sanitary (san), symbols for valves, water courses, and utilities.
1.8	Differentiate civil infrastructure utilities	1. Describe the purpose, configuration and materials used for infrastructure systems such as: Drinking water, sanitary and storm sewers, gas and electrical. 2. Describe the typical units of measurement, specifications and other terminology used for infrastructure systems including pipe classifications and aggregates.
1.9	Describe uses and limitations of locating technologies	1. Electro magnetic: Active - direct connection or inductive Passive 2. Ground penetrating radar. 3. Physical exposure (daylighting/hand exposure, hydro-vacing). 4. Pipe camera. 5. 'Fish taping'.
1.10	Distinguish utility marking conventions	1. APWA uniform color code. 2. Symbols and abbreviations for civil drawings and specifications. 3. Marking methods including paint, flags, stakes, chalk, offsets.
1.11	Employ basic computer skills	1. Search information on the internet using various browsers. 2. Send, receive and manage e-mail messages. 3. Prepare documents using word processing software. 4. Scan, save and send documents. 5. Clearly label and manage digital files. 6. Complete periodic backup of computer files and operating software.
2.0	**Work Safely**	
2.1	Determine applicable OH&S regulations	1. Outline and apply portions of the OH&S regulations that have common applicability to onsite sewerage work, including: o Part 4 General Conditions. o Part 8 Personal Protective Clothing and Equipment. o Part 9 Confined Spaces. o Part 18 Traffic Control. o Part 19 Electrical Safety. o Part 20 Construction, Excavation and Demolition.
2.2	Select and use Personal Protection Equipment (PPE)	1. Identify the purposes, proper use and adjustment, inspection and maintenance procedures for the types of PPE commonly used in the excavating, general construction and sewerage industries.

2.3	Evaluate risks of exposure to sewage	1. Identify risks to human health and the environment. 2. Employ mitigating strategies to reduce risks to the ROWP, the owners/clients and the public.
2.4	Evaluate safe work practices	1. Evaluate excavation stability: • Identify sloping standard practice. • Identify shoring standard practice. • Identify factors contributing to soil instability. 2. Assess electrical hazards. 3. Identify confined space conditions and risks. 4. Evaluate risks of working around heavy equipment. 5. Determine appropriate barriers, signage, site security.
2.5	Promote public safety	1. Identify when traffic control is needed. 2. Adopt best practices for signage, barriers, site security. 3. Advocate and exemplify safety behaviour.

3.0 Apply onsite wastewater fundamentals

3.1	Examine hazards to health and the environment	1. Describe the health risks, harm to the environment and potential impact on aquatic species of the following: 2. Exposure to pathogens and viruses. 3. Nitrogen and phosphorus. 4. Increased organic content and associated oxygen depletions. 5. Chemical constituents of cleaning products, cosmetics, pharmaceuticals, and others.
3.2	Evaluate regulatory framework	1. Outline the Sewerage System Regulation. 2. Evaluate health risks and identify reporting requirements. 3. Identify and apply when necessary the regulations applicable to onsite wastewater systems including: a) Public Health Act. b) Past Acts and Regulations in effect at the time a specific system being inspected was constructed c) Riparian Area Regulation. d) Drinking Water Protection Act. e) Ground Water Protection Act. f) Environmental Management Act. g) Municipal Wastewater Regulation. h) Industrial Camps Regulation (and proposed BC Guidelines for Work Camp Operations). i) Health Authority Subdivision Guidelines. j) Local bylaws and zoning including development permit areas and sewage maintenance bylaws. k) Covenants and easements that may impact sewerage. l) Building Code and Electrical Code provisions that pertain to sewerage.

3.3	Apply Standard Practice Manual (SPM) standards and guidelines	1. Comply with the procedures and standards applicable to: 2. Deciding on a system suitable for site conditions and client needs 3. Planning the detailed components and layout of the system 4. Installation practices in compliance with system design and component specifications 5. Planned preventative maintenance and system monitoring
3.4	Identify principles of treatment and dispersal	1. Describe principals of pre-treatment: • Settling and floatation, retention time. • Bacterial processes in tanks. • Aerobic and attached growth approaches. • Nitrification/de-nitrification. • Disinfection. • Filtration including effluent coarse screen filters, disc filters, membrane filters. 2. Describe principles of dispersal: • Soil as a treatment media (bacteriological and chemical processes, physical filtration and adsorption). • Water movement in soil (saturated soil/preferential flow versus unsaturated soil/matrix flow, capillary action, evapotranspiration, permeability, oxygen flux, long term clogging effects/biomat formation). • System sizing and configuration principles to achieve adequate retention time in soil. • Benefits of uniform distribution. • Benefits of small dose volumes and dosing equalization/timed dosing.
3.5	Differentiate treatment and dispersal technologies in common use both currently and historically	3. Differentiate treatment technologies, processes, hardware: • Describe processes, advantages and disadvantages of common treatment methods including aerobic, attached growth, disinfection, membrane and media. • Identify common proprietary hardware and outline the treatment processes used. 4. Differentiate dispersal technologies, processes, hardware: • Describe processes, advantages and disadvantages of dosing and dispersal methods including lagoons, trickle gravity, dose to D-box, pressure, drip, combined treatment and dispersal, packed bed filters, sand media systems, flouts and siphons, centrifugal and turbine pumps, demand and timed dosing, zoned dispersal. 5. Differentiate monitoring technologies, processes, hardware. • Describe processes and hardware for flow monitoring including mechanical cycle counters, flow meters, control panels using cycle counts and pump run times, data logging, and telemetry. • Describe processes and hardware for effluent sampling and groundwater monitoring including observation ports and sampling ports for in-tank and in-soil monitoring.

4.0 Design onsite sewerage systems

4.1	Assess site and soil conditions	1. Select and use appropriate equipment and tools. 2. Use test pits to identify soil characteristics. 3. Use test pits to identify limiting conditions for vertical separation. 4. Use percolation tests to indicate permeability. 5. Use permeameter testing to determine permeability. 6. Identify performance boundaries for compliance with horizontal separation standards. 7. Identify topography for compliance with slope limitations for different dispersal systems. 8. Identify most favourable locations on the lot for dispersal. 9. Identify problematic soil types (e.g. expanding clays, fractured rock, highly permeable soils, and soils with low permeability).
4.2	Classify soils	1. Identify and report the following soil characteristics as per SPM requirements using USDA or CANSIS systems: • Texture, structure and consistence. • Coarse fragments and roots. • Colour, mottling, greying. 2. Use hand texturing methods to determine texture. 3. Interpret lab testing reports (typically sieve analysis) to determine soil texture categories.
4.3	Evaluate background information	1. Retrieve and review any sewerage permits, filings or certification documents. 2. Retrieve and review building plans, health orders, covenants, easements. 3. Interview owner/system user, and obtain written declarations with usage information.
4.4	Determine conceptual design	1. Characterize sewage source and site use. 2. Apply system selection standards. 3. Conclude dispersal system location. 4. Conclude method of dispersal. 5. Determine pre-treatment method and location of tanks/treatment hardware.
4.5	Configure system	1. Determine daily design flow. 2. Configure pre-treatment system. 3. Configure dosing system. 4. Configure soil dispersal system. 5. Determine maintenance requirements.

4.6	Create documentation	1. Create field notes, design notes, supporting documents. 2. Create photographic record. 3. Create drawings. 4. Create design filing submission: 5. Health Authority Record of Sewerage System form. 6. Site/soil evaluation report, associated drawing(s). 7. Record of Design. 8. Specifications, associated drawings. 9. Create certification submission: 10. Health Authority Certification form 11. Record drawing(s) 12. Maintenance and monitoring plan 13. Owner's manual 14. Compile supporting documentation (e.g. manufacturer's manuals, warranty cards, and photographic record.
4.7	Provide construction review	1. Conduct pre construction orientation. 2. Examine construction at key stages of the installation. 3. Participate in commissioning. 4. Complete final inspection and approval. 5. Provide orientation for owner.

5.0 Install onsite sewerage systems

5.1	Develop a work plan	1. Select and use appropriate equipment and tools. 2. Determine access for construction. 3. Determine electrical service requirements for the system. 4. Determine requirements and schedules for sub trades, source of water supply for commissioning the system, and coordinate any relevant activities or contributions by the client. 5. Develop materials lists (and place orders as required), estimate volumes of sand media, aggregates. 6. Obtain and review filing, confirm acceptance by Health before construction start. 7. Review site constraints and specifications with the AP on record during a pre-construction meeting on site.

5.2	Validate compliance with critical standards	1. Confirm that the proposed system will comply with critical SPM standards for the following: 2. Horizontal separation (incl. SSR 30 m setback to wells). 3. Vertical separation. 4. Distinguish system selection standards including restrictions to gravity dispersal, slope limitations for different system types, suitability for lagoons, identification of expanding clays and highly permeable soils. 5. Confirm that the system specifications include access provisions for maintenance as per SPM standards. 6. Confirm that the system specifications and proposed construction procedures comply with SPM standards for installation.
5.3	Install components	1. Create layout in the field to control horizontal and vertical alignments. 2. Collaborate with AP on Record to ensure diligent construction review as construction proceeds. 3. Demonstrate hands on competency for operating earthmoving equipment, at least with entry-level competency for either skid steer, backhoe or excavator. 4. Demonstrate knowledge and experience related to earthmoving - sufficient to provide supervision as per industry expectations. 5. Install tanks, (including treatment plants, filters, UV units), plus anti floatation features and insulation when required. 6. Use compaction techniques to provide full support of piping. 7. Perform leak testing of tanks. 8. Install dosing systems including: 9. Pumps, flouts, siphons. 10. Control systems and flow monitoring provisions including floats, transducers, control panels and alarm(s). 11. Set floats, transducers to specifications. 12. Program control panels. 13. Install soil dispersal systems: 14. Installers shall demonstrate competency at installation of at least gravity, pressure, combined treatment and dispersal systems, in-ground and raised systems including sand mounds. 15. Perform site/soil preparation, soil remediation and scarification. 16. Install sand media and/or aggregates. 17. Install dispersal piping system and observation ports. 18. Install cover soil and other backfilling and site clean up.
5.4	Commission system at completion	1. Test and adjust D-box (levellers) to promote even distribution for gravity systems. 2. Perform flushing and squirt testing (residual head) for pressure dispersal systems. 3. Confirm float/transducer settings as per specification. 4. Perform dosing (pump, flout, siphon) and alarm testing, including filling tank too at least alarm event and conducting full dose test to confirm specified drawdown/dose volume. 5. Record panel record. 6. Provide owner orientation.

5.5	Create documentation	1. Create photographic record showing at minimum the pre-existing site conditions, post installation conditions (the finished product) and key stages of work as construction progressed. 2. Demonstrate ability to create field notes adequate to support formal record drawing, and to record panel record for the maintenance plan (although often the planner will complete these tasks). 3. Create Installer's Letter of Certification (if installer is not also the planner). 4. Create and retain a permanent file with all records pertaining to the project.

6.0 Maintain and monitor onsite sewerage systems

6.1	Carry out system assessment and maintenance	1. Select and use appropriate equipment and tools. 2. Interview owner/system user, and obtain written declarations with usage information. 3. Characterize sewage source and residence or facility use. 4. Obtain and apply the maintenance plan (including completion of the prescribed maintenance procedures of the maintenance plan). 5. Perform maintenance procedures as per standard practice, and SPM standards and guidelines. 6. Perform locating procedures including pipe camera methods and using electro-magnetic locating technology. 7. Test (and repair or replace) aerators, recirculation pumps. 8. Clean and replace filters, membranes, UV bulbs, replenish chlorination materials. 9. Assess condition and serviceability of filter media (e.g. sand media, peat, fabrics and plastics). 10. Assess condition and performance of dispersal systems including at least the following types: gravity, pressure, combined treatment and dispersal systems, and drip. 11. Perform flushing, jetting, vacuuming. 12. Assess and maintain grease interceptors. 13. Assess condition and performance of dosing systems including indexing valves, pumps, siphons, flouts and associated control systems. 14. Make conclusions about system performance and condition. 15. Make recommendations for repairs and improvements.

6.2	Monitor the system	1. Determine system flow volumes using control panel records, water meters or other means. 2. Evaluate flow volume, compare to design capacity, with consideration of current occupancy and usage patterns. 3. Conduct sampling for assessment of sewage and effluent characteristics, as per standard practice and requirements of testing labs. 4. Conduct field tests of sewage and effluent characteristics including at least ph, temperature, turbidity meters, $CBOD_5$ field tests, dissolved oxygen probes. 5. Evaluate pre-treatment performance using: Lab testing data, field test results. and visual and odour indicators. 6. Assess solids accumulations in septic tanks and other components. 7. Make conclusions and recommendations regarding system usage and subsequent maintenance frequency.
6.3	Perform component repairs	1. Diagnose performance shortcomings, 2. Troubleshoot system malfunctions. 3. Prioritize corrective actions when performance emergencies occur (typically to mitigate health hazards). 4. Perform component repair or replacement, including all those defined the SPM 5. Install access provisions, filters, replace UV bulbs and replenish chlorination materials. 6. Replace control system components. 7. Install observation ports and other provisions for effluent sampling.
6.4	Create documentation	1. Create photographic record showing at minimum the pre-existing site conditions, post maintenance conditions, key stages of maintenance work, including photographs selected to support conclusions about condition, performance and recommended repairs or improvements. 2. Demonstrate ability to create field notes adequate to support formal reports. 3. Create report of maintenance for clients. Include flow monitoring data/panel records to support subsequent maintenance. 4. Create simplified maintenance plan where none exists. 5. Create and retain a permanent file with all records pertaining to the project.

7.0 Conduct inspections

7.1	Determine the purpose and type of inspection	1. Interview owner/system user, and obtain written declarations with usage information 2. Determine if the purpose of the inspection is for system performance, compliance or other regulatory function 3. Characterize sewage source and residence/facility use. 4. Evaluate sewage flow volume and establish a design flow allowance. 5. Retrieve and review any sewerage permits, filings or certification documents. 6. Retrieve and review building plans, health orders, covenants, or easements. 7. Obtain written permission to enter property and disturb the site.

7.2	Carry out system assessment and inspection	1. Select and use appropriate equipment and tools. 2. Perform locating procedures including pipe camera methods and using electro-magnetic technology. 3. Expose and access system components. 4. Use pipe camera methods to assess condition and configuration of system components. 5. Evaluate the configuration, capacity and condition of tanks including sewage transfer/lift stations, flow equalization, septic tanks, trash tanks, pump chambers and other dosing tanks. 6. Evaluate the treatment capacity of treatment plants, CTDS, and other treatment technologies. 7. Assess performance of aerators, recirculation pumps. 8. Assess condition and serviceability of filters, membranes, UV bulbs, chlorination materials. 9. Assess condition and serviceability of filter media (e.g. sand media, peat, fabrics and plastics). 10. Evaluate the configuration, size and performance of dispersal systems including at least the following types: gravity, pressure, combined treatment and dispersal systems, and drip. 11. Evaluate configuration, capacity and performance of dosing systems including indexing valves, pumps, siphons, flouts and associated control systems based on standards applicable at the time of construction. 12. Conduct flow testing. 13. Perform other inspection procedures as listed in ASTTBC Standard Practice Guidelines for Inspection of Onsite Wastewater Systems. 14. Compare size, capacity, and configuration of system components to relevant standards 'of the day' and the current SPM – for the design allowance (based on current and/or anticipated use). 15. Make conclusions about system performance, condition and serviceability. 16. Make recommendations for repairs, improvements, replacement.
7.3	Create documentation	1. Create photographic record showing at minimum the pre-existing site conditions, post inspection conditions, key stages of inspection, including photographs selected to support conclusions about size, capacity, configuration, condition, performance. 2. Demonstrate ability to create field notes and field sketches adequate to support formal reports. 3. Create record drawings (see 1.7 – Use engineered drawings) 4. Create report of inspection for clients and/or other agencies, using approved terminology to report conclusions as per ASTTBC Standard Practice Guidelines for Inspection of Onsite Wastewater Systems. 5. Create and retain a permanent file with all records pertaining to the project.

Appendix 2: ROWP Practice Guidelines

Please refer to the separate document

Appendix 3: ASTTBC Mentoring, Field Training and Field Assessment Policy

Approved by Council: May 21, 2015

Introduction

The Mentoring, Field Training and Assessment Policy applies to all members and applicants regardless of discipline or technical specialty. In addition, some technical specialist Certification Board policies may specify supplemental conditions.

Mentoring is a voluntary, occupation-specific, helping relationship between someone that is recognized by peers to be experienced and competent in their field or discipline and is willing to develop a supportive professional volunteer relationship with a Mentee. The Mentee is typically a novice or inexperienced applicant or member aspiring to improve their competencies. Through a volunteer mentorship arrangement, the Mentee will learn ways to access professional networks that a one-on-one connection with a local mentor can offer. Examples of various types of mentorship include the traditional Master – Apprentice relationship, on-the-job training and supervision, an internship, a work place practicum, or job shadowing.

Field Training is an organized approach to providing experiential learning related to duties and tasks required of an individual to practice in a specific field or discipline. The relationship between an ASTTBC approved Field Trainer and a Trainee is a paid contractual agreement in which the Field Trainer plans, organizes and instructs the Trainee. Upon completion of Field Training session(s) the Trainee should have achieved the minimum competencies for one or more certification requirements specified by the relevant Certification Board. Ongoing formative assessment of the Trainee's knowledge, skills and abilities is an important part of every field training session. Three essential documents required for Field Training are: 1) Learning Contract describing anticipated learning outcomes, estimated hours and cost; 2) Report of the results of each field training session; and 3) Trainee's evaluation of the Field Training. Sample documents are provided in the Procedures on Mentoring, Field Training and Assessment document.

Field Assessment is a summative assessment of trainee or applicant competencies specific to their field or discipline. The relationship between an ASTTBC approved Field Assessor and a Trainee or Applicant is a paid contractual agreement in which the Field Assessor plans, organizes, and evaluates the actions of the Trainee or Applicant. The Field Assessor compares competencies demonstrated by the Trainee with the certification standards. A written report is prepared and submitted to the appropriate Certification Board. A copy of the assessment is given to the Trainee or applicant. If the Trainee or applicant failed the assessment the Field Assessor will summarize the deficiencies in a written report. Field Assessment is intended to be the final determination of whether or not the Trainee has achieved the minimum required standard for certification.

The Board of Examiners or Technical Specialist Certification Boards shall recommend qualified individuals that have expressed interest in being a Mentor, Field Trainer or Field Assessor. ASTTBC shall maintain and post on the website a register of approved Mentors, Field Trainers and Field Assessors.

The Registrar in consultation with the BoE or the respective Certification Board shall have the authority to remove from the approved list any Mentor, Field Trainer or Field Assessor that fails to comply with the ASTTBC policy and procedures on Mentoring, Field Training or Field Assessment.

Appendix 4: Practice Assessment Review (PAR) Policy

Approved by Council 2014 09 25

Responsibilities

The ASTT Act and Regulations provides for the certification, registration and regulation of technologists, technicians and technical specialists. Under the Act, the ASTTBC Council is authorized to make or revise policy and regulations empowering the Board of Examiners and the Technical Specialist Certification Boards to set standards and assess applications for certification and registration. The Practice Review Board (PRB) and the Registrar are authorized by Council to monitor member compliance to the ASTTBC certification criteria, Code of Ethics and Practice Standards. Section 4.7-c of the ASTT Regulations specifies that the PRB may, upon its own initiative, implement a practice assessment process in respect of a specific member where the PRB has reason to believe that either the member or the public would benefit from such process.

Practice Assessment Review (PAR)

10. Under the authority of the Practice Review Board (PRB), ASTTBC members are subject to an assessment of their competencies and practice to determine compliance with certification and registration requirements as specified by the Board of Examiners or the respective Technical Specialist Certification Board's.
11. A Practice Assessment Review (PAR) may be initiated when:
12. An ASTTBC Member voluntarily requests a review of his or her practice.
13. A Member is identified by the PRB through random selection.
14. ASTTBC has reason to believe that the practice of a member is inferior to the competency standards required for certification, or if there is reason to consider that the member may be non-compliant to the ASTTBC Code of Ethics or Practice Standards.
15. The PRB requires PAR as a censure condition resulting from the investigation of a complaint.
16. The Registrar shall select a Reviewer and specify the scope of work to be undertaken when conducting a PAR. A Reviewer is defined as a Compliance Officer or alternate.
17. The Practice Assessment Review (PAR) shall include but is not limited to the following actions:
18. Examination of a product of the Member's work to evaluate competency and compliance with the ASTTBC certification requirements, Code of Ethics and Practice Standards.
19. Examination of the Member's record of continuing professional development (CPD.
20. Further follow-up, if required and deemed appropriate by the Registrar, may include site visit(s) to observe the member under review or to see examples of his or her work. Follow-up may also require interviews with clients, supervisors or other references that shall be identified by the Member or as determined by the Registrar.
21. If a Member declares that she or he is unable to provide examples work done, products produced or services provided the Registrar may require the Member to complete an alternate form of assessment such as completion of case study or other examinations.

22. Upon completion of the PAR, the Reviewer shall write an evidence-based[1] report to be submitted to the Registrar. The report shall include succinct, factual information including:
23. The name of the Member and the reviewer,
24. The process and rationale for selecting the Member,
25. PAR processing dates,
26. Specific action undertaken during the review process,
27. Key observations and findings including a description of the gap between the Member's competencies and/or practice and the standards specified in the Board of Examiners and Technical Specialist Certification Board policies, the ASTTBC Code of Ethics and practice guidelines applicable to the discipline of the member.
28. Specify the requirements to improve practice and competencies to achieve the applicable minimum standards.
29. Recommendations for subsequent action.

30. The findings and recommendations for subsequent action shall fall within one of three categories:
31. *The Member under review is practicing in full compliance with ASTTBC certification criteria, Code of Ethics and Practice Standards applicable to his or her discipline:*

    In such cases, no further action is required. The Registrar shall advise the PRB and the Member.

32. *The Member under review is practicing substantially within ASTTBC Code of Ethics and Practice Standards, however some improvement is necessary:*

    The Reviewer shall include in the PAR Report the specific requirements for improving Member competency in the areas found to be deficient. The Member will report his or her progress on completing the requirements to the Registrar within the time specified in the PAR Report. When the Member has successfully completed the requirements or if he/she fails to meet the requirements in the time specified, the Registrar will advise the PRB.

33. *The Member under review is not practicing within the ASTTBC Code of Ethics or Practice Standards:*

    The Registrar shall advise the PRB of the deficiencies. The PRB shall revoke the Member's certification in the deficient discipline or disciplines. The suspension of certification shall be temporary until such time that the conditions specified by the PRB have been satisfied. In situations where the PAR reveals the existence of a significant and/or immediate risk to the health and safety of the Member or the public, the Registrar will inform the Member and notify the relevant authority having jurisdiction[2] of the PRB decision to temporarily revoke the certification and registration of the Member.

[1] An evidence-based report is substantiated by references supporting the descriptions of conditions, actions, competencies, services or products provided by the Member under review.

[2] Authorities having jurisdiction include but are not limited to: Fire Chiefs, Regional Health Offices, Consumer Protection BC, WorkSafeBC, and BC Safety Authority.

34. If a Member is certified in two or more disciplines or specialties the PAR will focus on either the more comprehensive discipline or specialty or the discipline for which a concern or complaint was received. The Registrar or the PRB shall identify the discipline(s) to be assessed.
35. Members have the right to appeal the PRB decision by submitting to the Registrar a written request explaining the reason for the appeal. The Appeals Committee of the PRB will review the appeal and make recommendations to the PRB. If the Member challenges the decision of the PRB Appeals Committee an appeal may be submitted to the Registrar for consideration by the ASTTBC Council.
36. Confidentiality: the Practice Review process is strictly confidential and under no circumstance will ASTTBC release to a third party any information related to a member's Practice Review, unless authorized to do so by the member including whether or not a member has undergone a Practice Review.
37. For Registered Onsite Wastewater Practitioners (ROWP) the requirement for Initial System Review (ISR) shall be replaced by PAR.
38. For Certified Property Inspectors (CPI), Certified House Inspectors (CHI) and Registered Reserve Fund Analysts (RRFA) any reference to a practice audit shall be replaced by PAR.
39. ASTTBC will establish a schedule of costs to be paid by a Member who volunteers or for any other reason is selected to undergo a PAR.

This policy shall come into effect upon the date of Council approval and shall be applicable to all ASTTBC members.

Appendix 5: Continuing Professional Development (CPD) Policy

Approved by Council: March 20, 2014

Purpose

In our ever-changing technological environment, the public expects that technologists, technicians and technical specialists keep informed of the latest developments related to the services they provide. Public expectations are supported in the ASTTBC Code of Ethics first principle that all members hold paramount the safety, health and welfare of the public, the protection of the environment and the promotion of health and safety within the workplace. This is achieved through principle 6: Members of ASTTBC shall keep informed to maintain proficiency and competence, to advance the body of knowledge within their discipline and further opportunities for the professional development of their associates. To uphold these membership principles we must keep informed by participating in various lifelong learning or continuing professional development (CPD) activities.

Policy

1. Effective January 2015, ASTTBC members[3] will be required to record a summary description of CPD activities and the CPD points earned each calendar year. Members and registrants will enter the information in their member account on the ASTTBC website http://www.asttbc.org/practice/cpd/
2. Members shall achieve an average of 20 CPD points annually. The points may be averaged over a five-year period.
3. The CPD information recorded in member accounts will be accessed and used by the Registrar or designate to generate a report on member compliance with the policy.
4. ASTTBC Registrar shall submit annually to the Practice Review Board (PRB) a report on Member Compliance to CPD with recommendations on non-compliant members.
5. The PRB will issue to non-compliant members a notice of their CPD status and the intention of ASTTBC to consider suspending their membership renewal until the member complies with the CPD policy.
6. The mandatory CPD requirement does not apply to honorary, lifetime or retired members.
7. The PRB is authorized to conduct an audit of CPD activities and points claimed by members.
8. In extraordinary circumstances, if a member is unable to achieve an average of 20 CPD points per year over 5 years he or she may submit to the PRB a written explanation of the reason for non-compliance to the policy and request a temporary exemption from CPD activity. The PRB may accept or reject the explanation and the member's request for temporary exemption from CPD.
9. A description of accredited CPD activities and the formula to determine the CPD points earned is provided in Table 1.

[3] In this policy, member includes any person granted ASTTBC certification and registration in any of the technologist, technician or technical specialist disciplines.

Table 1: Description of Acceptable CPD Activities and Points Earned

	Description of Acceptable CPD Activities	Points Earned
1.	Employed or self-employed in a technical capacity including leadership, management or supervisory functions. Enter 1 CPD point per month you were employed or actively seeking employment to a maximum of 12 points per calendar year.	
2.	Successful completion of a course or program related to your discipline that was provided by an accredited education institution or training provider. Enter 1 CPD point for every 5 hours of education or training completed.	
3.	Successful completion of a leadership, management, teamwork, supervision, financial or similar courses or training provided by a credible education institution or training provider. Enter 1 CPD point for every 5 hours of education or training completed.	
4.	Participating in non-formal learning including self-directed study, seminars, technical field trips, employer training programs or structured on-the-job training. Enter 1 CPD point for every 8 hours of non-formal learning activity.	
5.	Writing technical papers, articles, chapters or reviews that are published in journals, books or submitted for other professional or commercial purposes. Enter 1 CPD point for every 5 pages (approximately) of written content.	
6.	Designing, developing or teaching a training program or course of study related to your discipline or professional practice. Enter 1 CPD point for every 5 hours of education or training planned or taught.	
7.	Presenting at conferences, workshops or seminars related to your discipline or professional practice. Enter 3 CPD points for every conference or presentation given during the calendar year.	
8.	Attending conferences, workshops and seminars. Enter 1 CPD point for every 7 hours of a conference, workshop or seminar attended.	
9.	Serving on College or education boards, industry advisory committees or equivalent including other profession-related organizations or associations. Enter 1 CPD point for each meeting attended either in person or by teleconference	
10.	Serving on an ASTTBC Council, Board of Examiners, the Practice Review Board, Accreditation Board, Technical Specialist Certification Board or Committee. Enter 1 CPD point for each meeting attended either in person or by teleconference.	
11.	Volunteering as a File Reviewer for the Board of Examiners or Technical Specialist Certification Board or as a PRB investigator. Enter 1 CPD point for every file reviewed or complaint investigated.	
12.	Participating as a member of an accreditation team. Enter 3 CPD points for each education or training program accredited.	

13.	Membership in a relevant learned society. Enter 3 CPD points for the current year of membership.	
14.	Participating as an ASTTBC mentor or mentee. Enter 1 CPD point for every 5 hours of activity.	
15.	Attending ASTTBC Annual General Meeting. Enter 2 CPD points.	
16.	Receiving an award for technical excellence or service by an employer, agency or association. Enter 3 CPD points for an award.	
17.	Subscribing to and reading discipline-related journals or technical publications. Enter 3 CPD points for each annual subscription.	
18.	Other activity you consider as professional development. Submit for assessment by the CPD committee of the ASTTBC Accreditation Board a description of the activity including the amount of time you were involved.	

Appendix 6: Confidentiality Agreement

This Confidentiality Agreement is to be signed by all members of the ASTTBC ROWP Certification Board and file Reviewers.

ASTTBC is a professional association with information on individuals that may be regulated under privacy legislation. Board information may involve access to information that may be restricted, confidential or highly sensitive. Therefore, conditions of being a board member are as follows:

All records, files, publications, minutes, documents, passwords, intellectual material and information created or used during the term on the Board, shall remain the property of ASTTBC. All computer software, forms, graphics or designs used or developed in conducting the affairs of ASTTBC shall remain the property of ASTTBC.

The undersigned Board member or designated person hereby acknowledges all such records will be held in strict confidence. In the event of termination, all such records or property outlined above will be delivered to the Registrar or designated representative.

It is also understood that discussions pertaining to Board activities and decisions are confidential and may never be disclosed to a third party other than to Officers and designated staff of ASTTBC, or if required under applicable legislation.

Board members are also required to have read and adhere to the ASTTBC policy on Bias.

Print Name:_____

Signature:_____

Date: _____

Appendix 7: Retirement Policy

A Retired ASTTBC Member is permitted to volunteer, without remuneration, as a mentor or trainer in the field of engineering and applied science technology or carrying out no more than 100 hours of work per year for compensation. In all activities the ‘Retired’ Member must abide by the ASTT Act & Regulations and ASTTBC Council policies (including Code of Ethics and Continuing Professional Development requirements) regarding practice guidelines, standards and processes.

A 'Retired' Member is defined as a Member or in good standing with ASTTBC, who has reached the age of 55 or older, and has decided to become non-practicing or provide limited works and services per Council approved policy for 'Retired' status.

A Retired Member will be shown on the ASTTBC Register as having Retired status. The Retired member is not required to show Retired after their certified designation. Retired members are required to inform potential clients or employers of their practice limitations.

This policy will be administered by the ASTTBC Registrar, upon the request by the member for Retired status and upon receipt of the completed Retirement affidavit that affirms the retiring member understands the limits of practice and conditions for the change of classification to Retired.

The Registrar will report to the change in status to the appropriate Certification Board and make the required changes to the register and ASTTBC records.

If the member was insured for errors and omissions insurance prior to Retirement, the Registrar will inform the ASTTBC insurance provider of the member’s change in classification.

Appendix 8: ASTTBC Guidelines for Terms of Office for ASTTBC Board Members

1. The duration of one Term of Office for a Board member is three consecutive calendar years.
2. Volunteers will be recruited and invited to participate on a Board for one term.
3. A second consecutive term of three years on the same Board may be possible upon the recommendation of the relevant Board and approval of the Council.
4. A Board member is generally limited to serving concurrently on one Board. Any member seeking or requested to serve on more than one Board concurrently may do so upon the recommendation of the relevant Boards and the approval of Council. This limitation does not apply to institutional representatives, observers and special appointments by Council.
5. To ensure continuity and consistency of Board functions the end of term for Board members having served either one or two consecutive Terms will be December 31.
6. Each year at the January Council meeting new Board members will be appointed to replace the members that have completed their term(s) of office.
7. A transition period (2014 to 2016) will be required to fully implement the revised Terms of Office guidelines. During the transition, Boards will recommend end of term for one third of their Board members with the most years of consecutive service on the Board.
8. The Term of Office of a Board Member absent for 3 consecutive meetings in a calendar year will end on December 31 of the year in which the absences were recorded.
9. Attendance at Board meetings may be in person, by teleconference or by other electronic means.

Appendix 9: Secondary School Equivalence Policy

Secondary School Equivalency Policy

Approved by Council: September 25, 2014

Successful completion of a Secondary School certificate or diploma program in which English was the language of instruction is the basic requisite for all applicants seeking ASTTBC certification. Applicants must provide the original or a certified true copy of the original secondary school completion certificate and transcript of grades.

Alternatively, a Secondary School Equivalency Certificate issued by a Canadian provincial education authority is acceptable.

If an applicant is unable to provide evidence of secondary school completion the following shall be accepted as equivalent. As evidence of achieving each of the following criteria the applicant shall submit the original documents to ASTTBC.

- The applicant shall be a minimum of 19 years old; and
- Have achieved Level 7 or higher in listening, speaking, reading and writing on the Canadian Language Technology Benchmarks (CLB) test for English; and
- Have successfully completed a post-secondary training course (minimum of 30 hours) relevant to the discipline or technical specialization of the applicant; or
  Prepare and submit a written portfolio of prior learning acceptable to the Board of Examiners or relevant Technical Specialist Certification Board. The portfolio shall describe how, where and when the applicant learned the knowledge and gained the competencies required for certification.

Effective date: Upon Council approval, this Secondary School Equivalency policy supersedes secondary school or equivalent and / or English language competency requirements in the ASTTBC Board of Examiners and all Technical Specialist Certification Board policies.