



## **ONSITE WASTEWATER CERTIFICATION BOARD**

### **CERTIFICATION POLICY**

**January 26, 2017**

**APPLIED SCIENCE TECHNOLOGISTS AND TECHNICIANS OF BRITISH COLUMBIA**

## PREFACE

This policy approved by the ASTTBC Council on January 26, 2017 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.

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## CHRONOLOGY OF POLICY REVISIONS

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## **1.0 Authority of the Certification Board**

### **1.1 Authority to Certify and Register**

1.1.1 The ASTTBC 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 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.

### **1.2 Purpose of the Onsite Wastewater Certification Board**

The Onsite Wastewater Certification Board (OWCB) is established for the purpose of:

- a) Certifying individuals that have applied for certification as a Registered Onsite Wastewater Practitioner (ROWP).
- b) Submitting for Council approval the certification standards for ROWPs.
- c) Recommending qualified individuals to be Mentors, Field Trainers, and Field Assessors (Appendix 3)
- d) Recommending to the ASTTBC Accreditation Board the names of individuals to participate on accreditation teams and the approval of reports for the accreditation of Onsite Wastewater training programs.
- e) Submitting to the ASTTBC Council the names of Individuals recommended to be appointed to the OWCB.
- f) Recommending to Council any Changes in the OWCB Policy.
- g) Recommending changes to the ROWP 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 3.0) plus;
- A minimum of one non-ROWP appointed from outside the ROWP membership and not directly connected to ASTTBC

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.

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

- a) To pass one or more examinations;
- b) To provide evidence of having achieved the occupational competencies specified in the OWCB policy Appendix 1.
- c) 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.
- d) To complete a structured interview.
  - i. The OWCB may appoint Board members, subject matter expert assessors or other qualified ASTTBC members to interview an applicant.
  - ii. 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.
  - iii. 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.
  - iv. 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.
- e) To substantiate their application for certification in any other reasonable manner as requested by the OWCB.

1.4.3 The OWCB shall have the authority to appoint File Reviewers to evaluate applications for certification based on the standards and criteria established by the OWCB.

1.4.4 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.

1.4.5 The Registrar shall send written notice to the applicant advising of the OWCB decision. The reasons for the decision shall be included in the written notice to the applicant.

1.4.6 The OWCB shall regularly review its policies and methods and recommend changes to ASTTBC Council.

1.4.7 The OWCB is responsible for the quality, consistency and timeliness of evaluations and recommendations made by OWCB File Reviewers.

## 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.

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. At the discretion of the Chair or the Registrar, guests may 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 Practice Rights and Obligations of ROWPs

### 2.1 Recognition as Authorized Person

2.1.1 An ASTTBC member in good standing and certified by the OWCB as a Registered Onsite Wastewater Practitioner (ROWP) is recognized under the Sewerage System Regulation (SSR) as an Authorized Person (AP) to provide onsite wastewater services within the scope of practice for which the ROWP is certified (Installer, Maintenance Provider or Planner).

2.1.2 ROWP Authorized Persons must comply with all provisions of the Sewerage System Regulation including the restrictions to ROWP Practice. Unless supervised by a Professional, ROWPs must not design, construct or maintain systems using type 3 treatment or systems with daily design flow >9100 L.

### 2.2 Adherence to the SPM

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

2.2.2 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.

## **2.3 Record Keeping**

2.3.1 ROWPs are to create and retain complete records for each project they are involved with. The records shall include contact information for relevant parties, notes, reports, recordings, photographic evidence, declarations and acknowledgements by owner, all Filing and Certification documents submitted to the Health Authorities, and other documents provided to clients and/or Authorities Having Jurisdiction.

2.3.2 These records shall be retained by the ROWP in a safe, secured manner for a minimum of 15 years. This time period is consistent with provincial Statute of Limitation laws applicable to professionals.

2.3.3 ROWPs shall use effective methods of backup for digital files.

## **3.0 Certification and Registration Categories**

### **3.1 Planner**

3.1.1 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, in accordance with the Standard Practice Manual.

3.1.2 An ASTTBC member must be certified as a ROWP Planner before providing site/soil assessment, design and construction review services, or conclusions regarding suitability of sites for onsite wastewater treatment.

3.1.3 An ASTTBC member must be certified as a ROWP Planner before submitting Filing or Certification documents to the Health Authority.

### **3.2 Installer**

3.2.1 An individual certified as an Installer, shall be competent to install a sewerage system 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.in accordance with the Standard Practice Manual, and in accordance with specifications within the Filing documents prepared by an Authorized Person and accepted by the relevant Health Authority.

3.2.2 An ASTTBC member must be certified as a ROWP Installer before providing system installation, system repair or replacement (as defined by SPM) or supervision of construction by non-authorized persons.

3.2.3 At the discretion of the OWCB an Installer may be certified for installing Type 3 systems or systems with daily design flow design >9100 L. The Sewerage System Regulation requirements for Professional supervision of construction for type 3 or systems with daily design flow >9100 L remain in effect.

### **3.3 Maintenance Provider**

3.3.1 An individual certified as a Maintenance Provider shall be competent in monitoring and maintaining a sewerage system 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, in accordance with the Standard Practice Manual.



3.3.2 An ASTTBC member must be certified as a ROWP Maintenance Provider before providing system maintenance and monitoring, and before undertaking component repair or replacement (as defined in SPM).

3.3.3 At the discretion of the OWCB a Maintenance Provider may be certified by the OWCB to provide service for Type 3 systems or systems with daily design flow design >9100 L. The Sewerage System Regulation requirements for Professional supervision of type 3 or systems with daily design flow >9100 L remain in effect.

### **3.4 Private Inspector**

3.4.1 An ASTTBC member must be certified as a ROWP Residential Private Inspector or Commercial Private Inspector before providing inspection or assessment services (as defined by Section 7 and Annex 1 of the ROWP Practice Guidelines).

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

#### **3.4.3 Inspector – Residential**

A ROWP conducting residential inspections shall achieve the competencies specified in Appendix 1 of this Policy to inspect residential sewerage systems using a Type 1, 2 or 3 treatment method.

#### **3.4.4 Inspector – Commercial**

A ROWP conducting commercial inspections shall achieve the competencies specified in Appendix 1 of this Policy to inspect a commercial sewerage system, using a Type 1, 2 or 3 treatment method.

### **3.5 Provisional Registered Onsite Wastewater Practitioner**

3.5.1 An applicant who has completed a training program recognized by ASTTBC but has not achieved the minimum competency and work experience requirements may be granted certification as a Provisional Registered Onsite Wastewater Practitioner (ROWP(Provisional)).

3.5.2 ROWP(Provisional) members are not eligible to request or use a stamp, enroll in the ASTTBC - organized errors and omissions insurance, or transfer membership to another province.

3.5.3 Provisional members have a maximum of two years from the approval date of Provisional status to achieve the required work experience as outlined in section 5.0 Work Experience, and the competencies as listed in Appendix 1 Occupational Competencies of the OWCB Certification Policy.

### **3.6 Retired**

3.6.1 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.

## 4.0 Certification Criteria

### 4.1 Basic Requirements

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

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

4.1.2 Proof of secondary school completion or equivalent as described in Appendix 9.

4.1.3 English language competency to a minimum of level 7 for speaking, listening, reading and writing on the Canadian Language Technology Benchmarks test of English. Other recognized standard tests of English competency may be considered at the discretion of the Registrar.

4.1.4 Applicants with previous or current criminal record for which no pardon has been issued must write a confidential letter to the Registrar explaining past or outstanding criminal offences. ASTTBC reserves the right to request an applicant to provide, at the applicant's cost, a criminal records check. An applicant refusing to submit a criminal record check, if requested, shall explain in writing to the Registrar the reasons for refusal. The matter shall be submitted to the Practice Review Board.

4.1.5 Successful completion of the ASTTBC Professional Practices and Ethics exam.

4.1.6 Successful completion of the ROWP Jurisprudence Exam in an invigilated setting. The jurisprudence examination will evaluate knowledge of the ASTT Act and Regulations, Code of Ethics, the BC Sewerage System Regulation and the BC Sewerage System Standard Practice Manual.

4.1.7 Applicants shall submit payments to ASTTBC for the non-refundable registration and application fees. Applicants are responsible for costs such as photographs, transcripts, official translation of documents, and other expenses that may be incurred to prepare and submit applications.

4.1.8 An applicant shall comply with ASTTBC Code of Ethics and the Onsite Wastewater Certification Board policy.

### 4.2 Application Requirements

4.2.1 Any individual seeking certification as an ROWP shall initiate the application process by registering online at <https://www.asttbcapply.ca/>

4.2.2 Applicants shall provide the names, designations and contact information for a minimum of three referees. The referees shall be able to comment on the occupational competencies, work history and character of the applicant. 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.

4.2.3 Certification will be granted based on demonstrated achievement of occupational competencies as shown in Appendix 1, including General Areas of Competency 1.0, 2.0 and 3.0 for all applicants, and at least one of the Specialty Areas of Competency 4.0, 5.0, 6.0 or 7.0 corresponding to the category(ies) of certification sought by the applicant. Satisfactory achievement of each competency requires the applicant to demonstrate or provide evidence that they have achieved a minimum of 80% of the indicators (right hand column) describing each competency.

### **4.3 Documented Evidence of Competencies**

4.3.1 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.

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

### **4.4 Applications in Abeyance**

4.4.1 Applicant files will be put into abeyance if the applicant has failed to meet application completion requirements within two years of submitting their application.

4.4.2 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.

4.4.3 The Registrar is required to notify applicants of the pending termination of their application including forfeiture of the registration and application fees.

## **5.0 Work Experience Requirements**

### **5.1 Basic Essential Experience**

5.1.1 All applicants are required to complete the on line work experience 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 system design, installing systems, maintaining or inspecting onsite wastewater systems. Digital photographs or video may be referenced, appended or linked to the career log.

### **5.2 Planner Work Experience**

5.2.1 Certification as a Planner requires evidence of work completed by the applicant, conducted under the supervision of an Authorized Person, for planning onsite wastewater systems. The applicant is required to complete planning of a minimum of three onsite wastewater systems of which at least one must use a uniform distribution method.

5.2.2 The work submitted must be in compliance with the SSR, the SPM, the OWCB Policy and ROWP Practice Guidelines. If the plans are to be filed with the Health Authority they must be verified, stamped and filed by an Authorized Person.

5.2.3 An applicant may submit evidence of work experience obtained during experiential learning within a training program or Field Training as per Appendix 3 Policy for Mentoring, Field Training and Field Assessment. The Board may consider experiential learning to be equivalent to a maximum of two design projects.

### **5.3 Installer Work Experience**

5.3.1 Certification as an Installer requires evidence of work completed by the applicant, conducted under the supervision of an Authorized Person, for installing onsite wastewater

systems. The applicant is required to complete installation of a minimum of three onsite wastewater systems of which at least one must use a uniform distribution method.

5.3.2 The work submitted must be in compliance with SPM standards for installation procedures and specifications, the OWCB Policy and ROWP Practice Guidelines. The system design, specifications and drawings must be verified, stamped and filed by an Authorized Person.

5.3.3 An applicant may submit evidence of work experience obtained during experiential learning within a training program or Field Training as per Appendix 3 Policy for Mentoring, Field Training and Field Assessment. The Board may consider experiential learning to be equivalent to a maximum of two installations.

5.3.4 Certification for installing Type 3 sewerage systems and systems with daily design flow greater than 9100 L (see 3.2.3) requires evidence of installing a minimum of three Type 3 or large flow (> 9100 L) systems under the supervision of a P.Eng.

## **5.4 Maintenance Provider Work Experience**

5.4.1 Certification as a Maintenance Provider requires evidence of work completed by the applicant, conducted under the supervision of an Authorized Person, for maintaining onsite wastewater systems. The applicant is required to complete maintenance of a minimum of five onsite wastewater systems of which at least one must use a uniform distribution method, one must use type 2 treatment, and at least one constructed prior to the SSR to demonstrate comprehension of historical regulations and standards.

5.4.2 The work submitted must be in compliance with SPM standards and guidelines for maintenance and monitoring, the OWCB Policy and ROWP Practice Guidelines.

5.4.3 An applicant may submit evidence of work experience obtained during experiential learning within a training program or Field Training as per Appendix 3 Policy for Mentoring, Field Training and Field Assessment. The Board may consider experiential learning to be equivalent to a maximum of three maintenance service projects.

5.4.4 Certification for maintenance of Type 3 sewerage systems and systems with daily design flow greater than 9100 L (see 3.3.3) requires evidence of maintaining a minimum of three Type 3 or large flow (> 9100 L) systems under the supervision of a P.Eng.

## **5.5 Private Inspector Work Experience**

5.5.1 Private Inspection certification is granted with specific endorsement for Residential and/or Commercial inspections. Residential endorsement requires work experience for inspections of residences which residential sewage strength as per SPM Table III- 8. Commercial endorsement requires work experience for inspections of commercial facilities, which may generate sewage strength exceeding the residential strength parameters of SPM Table III- 8.

5.5.2 Certification as a Private Inspector requires evidence of work completed by the applicant, conducted under the supervision of an Authorized Person, for inspection of onsite wastewater systems. The applicant is required to complete inspections of a minimum of five onsite wastewater systems of which at least one must use a uniform distribution method, one must use type 2 treatment, and at least one constructed prior to the SSR to demonstrate comprehension of historical regulations and standards. For the Commercial endorsement, the minimum experience must include at least three inspections for commercial facilities.

5.5.3 The work submitted must be in compliance with SPM standards, the OWCB Policy and ROWP Practice Guidelines (including Annex 1 – Guidelines for Providing Inspection Service, note the guidelines for procedures, reports and records).

5.5.4 An applicant may submit evidence of work experience obtained during experiential learning within a training program or Field Training as per Appendix 3 Policy for Mentoring, Field Training and Field Assessment. The Board may consider experiential learning to be equivalent to a maximum of three inspection projects.

## **5.6 Experience Gained by Mentoring, Field Training and Field Assessment**

5.6.1 ASTTBC policy presented in Appendix 3 applies. In accordance with the Mentoring, Field Training and Field Mentoring Policy, applicants and ROWPs may engage ASTTBC to provide the ROWP with mentoring and training to achieve work experience requirements.

## **6.0 Transfer Under Inter Provincial Trade Agreements**

### **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.

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 applicant must provide documents issued by the authority in the Province from which the transfer is being made, as proof of certification or registration in the province of origin as an onsite wastewater practitioner or equivalent in the corresponding registration categories.

## **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 Conditions of Certification**

### **8.1 Continuing Professional Development (CPD)**

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

### **8.2 Practice Assessment Review (PAR)**

8.2.1 The ASTTBC PAR Policy applies to ROWP members (see Appendix 4). ROWPs will be required to undergo a PAR within six months of initial certification and within 6 months of adding a category of certification. The PAR may include a Competency Exam, review of work examples and other evaluation strategies as directed by the Registrar.

## **9.0 Reinstatement of Cancelled Registration**

### **9.1 Cancellation of Certification**

9.1.1 The Practice Review Board shall initiate a process to cancel ROWP certification and registration if the certification was made in error, or under false pretenses.

9.1.2 The Practice Review Board may suspend ROWP certification and registration due to a breach in the ASTTBC Code of Ethics and Practice Guidelines.

### **9.2 Conditions for Reinstatement of Registration**

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

- a) Complete an application for reinstatement.
- b) Submit an up-dated resume that includes details of professional development and work history since the original registration was granted.
- c) Provide contact information for 3 referees as described in 4.2.2.
- d) Successfully complete examination(s) for each requested endorsement(s).
- e) Pay the pro-rated dues for the current year fiscal year. There is no requirement to pay dues for the date of cancellation to the reinstatement date.

9.2.2 The Registrar may waive or vary any or all of the requirements stipulated in 9.2.1.

### **9.3 Notification of ROWP Members Cancelled or Reinstated**

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

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

9.3.3 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.

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

## **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.

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 Practitioner registered and in good standing. The right to use the stamp is a privilege granted to Practitioners by ASTTBC under the ASTT Act and the privilege can be removed if not used in an ethical or professional manner.

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 allowable scope of practice as defined by the certification categories of the member and with regard to Code of Ethics Principle 2.

## 10.3 Application of Stamp

10.3.1 The professional stamp must be applied in a clear and legible manner. The stamp must be used on documents which have been prepared by the Practitioner or prepared under the immediate supervision of the Practitioner. The normal signature of the Practitioner must be clearly shown in the space provided. The use of initials without surname is not allowed. The date the stamp is used must be noted.

10.3.2 Documents requiring application of the stamp include documents that:

- a) Transfer technical information; or
- b) Have a technical impact on a third party; or
- c) Have been specifically requested by a client or an authority having jurisdiction.

## 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.

## 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.

## APPENDICIES

### Appendix 1: Occupational Competencies

The occupational competencies are used by ASTTBC as Competency-based Certification Standards. Certification is conditional on achievement of these occupational competencies as per OWCB Policy 4.2.3:

*4.2.3. Certification will be granted based on demonstrated achievement of occupational competencies as shown in Appendix 1, including General Areas of Competency 1.0, 2.0 and 3.0 for all applicants, and at least one of the Specialty Areas of Competency 4.0, 5.0, 6.0 or 7.0 corresponding to the category(ies) of certification sought by the applicant. Satisfactory achievement of each competency requires the applicant to demonstrate or provide evidence that they have achieved a minimum of 80% of the indicators (right hand column) describing each competency.*

Persons making application for initial ROWP certification or adding a category of certification should refer to these occupational competencies to identify training, mentoring and self-study goals. Applicants will be required to describe how they have achieved these occupational competencies within the on line application.

The competencies should also be referenced by ROWPs to determine Continuing Professional Development goals.

The competencies are also useful for training providers when developing curriculum and delivering instruction.



No.	Competencies	Indicators
<b>1.0</b>	<b>Apply fundamental occupational skills</b>	
1.1	Maintain a professional work ethic	<ol style="list-style-type: none"> <li>1. Conduct and apply ASTTBC Code of Ethics and Practice Guidelines.</li> <li>2. Apply general principles of professionalism, diligence.</li> <li>3. Advocate best practices, promote regulatory compliance.</li> </ol>
1.2	Employ effective business practices	<ol style="list-style-type: none"> <li>1. Obtain written declarations from owners to confirm usage information relevant to system design.</li> <li>2. Provide written quotes with fixed pricing or expected range of pricing.</li> <li>3. Prepare written contracts describing the service you will provide and expectations of the client.</li> <li>4. Use effective printed document and electronic data filing systems including backup to maintain records for a minimum of 15 years.</li> </ol>
1.3	Use effective interpersonal skills	<ol style="list-style-type: none"> <li>1. Apply conflict resolution methodologies.</li> <li>2. Describe effective behaviour in organizations.</li> <li>3. Use interpersonal skills to define expectations and agreements with clients and owner education.</li> </ol>
1.4	Apply effective communication skills	<ol style="list-style-type: none"> <li>1. Complete the general competencies for verbal and written English literacy suited for a Canadian technical workplace.</li> <li>2. Apply effective techniques for active listening, questioning strategies and interview techniques.</li> <li>3. Use communication skills to define expectations and agreements with clients and to inform owners of system functions, operating and maintenance instructions.</li> </ol>
1.5	Apply math and science concepts	<ol style="list-style-type: none"> <li>1. Apply basic math concepts including: <ol style="list-style-type: none"> <li>a. Decimal, fraction and percentage expressions.</li> <li>b. Order of arithmetic operations.</li> <li>c. Exponential functions.</li> <li>d. Logarithms.</li> <li>e. Rounding and significant figures.</li> </ol> </li> <li>2. Apply metric and imperial systems of measurement: <ol style="list-style-type: none"> <li>a. Convert linear, volume and pressure variables from metric to imperial systems.</li> <li>b. Interpret specifications and regulatory requirements that are expressed in systems of measurement.</li> <li>c. Prepare specifications for onsite systems using the metric system.</li> </ol> </li> <li>3. Interpret and create drawings using linear scales on drawings and sketches.</li> <li>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.). <ol style="list-style-type: none"> <li>a. Percentage (rise/run).</li> <li>b. Ratio (run:rise).</li> </ol> </li> <li>5. Calculate volume: <ol style="list-style-type: none"> <li>a. Determine volume of existing tanks.</li> <li>b. Estimate volume of excavations, volume of imported sand media and other aggregates, including bulking and settling estimates.</li> </ol> </li> </ol>

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 tapping'.

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|------|---|---|
| 1.10 | Distinguish utility marking conventions | <ol style="list-style-type: none"> <li>1. APWA uniform color code.</li> <li>2. Symbols and abbreviations for civil drawings and specifications.</li> <li>3. Marking methods including paint, flags, stakes, chalk, offsets.</li> </ol>  |
| 1.11 | Employ basic computer skills            | <ol style="list-style-type: none"> <li>1. Search information on the internet using various browsers.</li> <li>2. Send, receive and manage e-mail messages.</li> <li>3. Prepare documents using word processing software.</li> <li>4. Scan, save and send documents.</li> <li>5. Clearly label and manage digital files.</li> <li>6. Complete periodic backup of computer files and operating software.</li> </ol> |

## 2.0 Work Safely

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|-----|--|--|
| 2.1 | Determine applicable OH&S regulations              | <ol style="list-style-type: none"> <li>1. Outline and apply portions of the OH&amp;S regulations that have common applicability to onsite sewerage work, including: <ul style="list-style-type: none"> <li>○ Part 4 General Conditions.</li> <li>○ Part 8 Personal Protective Clothing and Equipment.</li> <li>○ Part 9 Confined Spaces.</li> <li>○ Part 18 Traffic Control.</li> <li>○ Part 19 Electrical Safety.</li> <li>○ Part 20 Construction, Excavation and Demolition.</li> </ul> </li> </ol>                        |
| 2.2 | Select and use Personal Protection Equipment (PPE) | <ol style="list-style-type: none"> <li>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.</li> </ol>   |
| 2.3 | Evaluate risks of exposure to sewage               | <ol style="list-style-type: none"> <li>1. Identify risks to human health and the environment.</li> <li>2. Employ mitigating strategies to reduce risks to the ROWP, the owners/clients and the public.</li> </ol>  |
| 2.4 | Evaluate safe work practices                       | <ol style="list-style-type: none"> <li>1. Evaluate excavation stability: <ul style="list-style-type: none"> <li>● Identify sloping standard practice.</li> <li>● Identify shoring standard practice.</li> <li>● Identify factors contributing to soil instability.</li> </ul> </li> <li>2. Assess electrical hazards.</li> <li>3. Identify confined space conditions and risks.</li> <li>4. Evaluate risks of working around heavy equipment.</li> <li>5. Determine appropriate barriers, signage, site security.</li> </ol> |
| 2.5 | Promote public safety                              | <ol style="list-style-type: none"> <li>1. Identify when traffic control is needed.</li> <li>2. Adopt best practices for signage, barriers, site security.</li> <li>3. Advocate and exemplify safety behaviour.</li> </ol>  |

### 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:
    - Exposure to pathogens and viruses.
    - Nitrogen and phosphorus.
    - Increased organic content and associated oxygen depletions.
    - 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:
    - a. Deciding on a system suitable for site conditions and client needs
    - b. Planning the detailed components and layout of the system
    - c. Installation practices in compliance with system design and component specifications
    - d. 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
1. 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.
  2. 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.
  3. 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.

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| 4.3 | Evaluate background information | <ol style="list-style-type: none"> <li>1. Retrieve and review any sewerage permits, filings or certification documents.</li> <li>2. Retrieve and review building plans, health orders, covenants, easements.</li> <li>3. Interview owner/system user, and obtain written declarations with usage information.</li> </ol>   |
| 4.4 | Determine conceptual design     | <ol style="list-style-type: none"> <li>1. Characterize sewage source and site use.</li> <li>2. Apply system selection standards.</li> <li>3. Conclude dispersal system location.</li> <li>4. Conclude method of dispersal.</li> <li>5. Determine pre-treatment method and location of tanks/treatment hardware.</li> </ol>   |
| 4.5 | Configure system                | <ol style="list-style-type: none"> <li>1. Determine daily design flow.</li> <li>2. Configure pre-treatment system.</li> <li>3. Configure dosing system.</li> <li>4. Configure soil dispersal system.</li> <li>5. Determine maintenance requirements.</li> </ol>  |
| 4.6 | Create documentation            | <ol style="list-style-type: none"> <li>1. Create field notes, design notes, supporting documents.</li> <li>2. Create photographic record.</li> <li>3. Create drawings.</li> <li>4. Create design filing submission:</li> <li>5. Health Authority Record of Sewerage System form.</li> <li>6. Site/soil evaluation report, associated drawing(s).</li> <li>7. Record of Design.</li> <li>8. Specifications, associated drawings.</li> <li>9. Create certification submission:             <ol style="list-style-type: none"> <li>a. Health Authority Certification form</li> <li>b. Record drawing(s)</li> <li>c. Maintenance and monitoring plan</li> <li>d. Owner's manual</li> <li>e. Compile supporting documentation (e.g. manufacturer's manuals, warranty cards, and photographic record)</li> </ol> </li> </ol> |
| 4.7 | Provide construction review     | <ol style="list-style-type: none"> <li>1. Conduct pre construction orientation.</li> <li>2. Examine construction at key stages of the installation.</li> <li>3. Participate in commissioning.</li> <li>4. Complete final inspection and approval.</li> <li>5. Provide orientation for owner.</li> </ol>  |

## **5.0 Install onsite sewerage systems**

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|-----|---------------------|--|
| 5.1 | Develop a work plan | <ol style="list-style-type: none"> <li>1. Select and use appropriate equipment and tools.</li> <li>2. Determine access for construction.</li> <li>3. Determine electrical service requirements for the system.</li> <li>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.</li> <li>5. Develop materials lists (and place orders as required), estimate volumes of sand media, aggregates.</li> <li>6. Obtain and review filing, confirm acceptance by Health before construction start.</li> <li>7. Review site constraints and specifications with the AP on record during a pre-construction meeting on site.</li> </ol> |
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| 5.2 | Validate compliance with critical standards | <ol style="list-style-type: none"> <li>1. Confirm that the proposed system will comply with critical SPM standards for the following:             <ol style="list-style-type: none"> <li>a. Horizontal separation (incl. SSR 30 m setback to wells).</li> <li>b. Vertical separation.</li> </ol> </li> <li>2. 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.</li> <li>3. Confirm that the system specifications include access provisions for maintenance as per SPM standards.</li> <li>4. Confirm that the system specifications and proposed construction procedures comply with SPM standards for installation.</li> </ol>  |
| 5.3 | Install components                          | <ol style="list-style-type: none"> <li>1. Create layout in the field to control horizontal and vertical alignments.</li> <li>2. Collaborate with AP on Record to ensure diligent construction review as construction proceeds.</li> <li>3. Demonstrate hands on competency for operating earthmoving equipment, at least with entry-level competency for either skid steer, backhoe or excavator.</li> <li>4. Demonstrate knowledge and experience related to earthmoving - sufficient to provide supervision as per industry expectations.</li> <li>5. Install tanks, (including treatment plants, filters, UV units), plus anti floatation features and insulation when required.</li> <li>6. Use compaction techniques to provide full support of piping.</li> <li>7. Perform leak testing of tanks.</li> <li>8. Install dosing systems including:             <ol style="list-style-type: none"> <li>a. Pumps, flouts, siphons.</li> <li>b. Control systems and flow monitoring provisions including floats, transducers, control panels and alarm(s).</li> <li>c. Set floats, transducers to specifications.</li> <li>d. Program control panels.</li> </ol> </li> <li>9. Install soil dispersal systems:             <ol style="list-style-type: none"> <li>a. Installers shall demonstrate competency at installation of at least gravity, pressure, combined treatment and dispersal systems, in-ground and raised systems including sand mounds.</li> <li>b. Perform site/soil preparation, soil remediation and scarification.</li> <li>c. Install sand media and/or aggregates.</li> <li>d. Install dispersal piping system and observation ports.</li> <li>e. Install cover soil and other backfilling and site clean up.</li> </ol> </li> </ol> |
| 5.4 | Commission system at completion             | <ol style="list-style-type: none"> <li>1. Test and adjust D-box (levellers) to promote even distribution for gravity systems.</li> <li>2. Perform flushing and squirt testing (residual head) for pressure dispersal systems.</li> <li>3. Confirm float/transducer settings as per specification.</li> <li>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.</li> <li>5. Record panel record.</li> <li>6. Provide owner orientation.</li> </ol>   |
| 5.5 | Create documentation                        | <ol style="list-style-type: none"> <li>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.</li> </ol>   |

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**

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|-----|---|---|
| 6.1 | Carry out system assessment and maintenance | <ol style="list-style-type: none"> <li>1. Select and use appropriate equipment and tools.</li> <li>2. Interview owner/system user, and obtain written declarations with usage information.</li> <li>3. Characterize sewage source and residence or facility use.</li> <li>4. Obtain and apply the maintenance plan (including completion of the prescribed maintenance procedures of the maintenance plan).</li> <li>5. Perform maintenance procedures as per standard practice, and SPM standards and guidelines.</li> <li>6. Perform locating procedures including pipe camera methods and using electro-magnetic locating technology.</li> <li>7. Test (and repair or replace) aerators, recirculation pumps.</li> <li>8. Clean and replace filters, membranes, UV bulbs, replenish chlorination materials.</li> <li>9. Assess condition and serviceability of filter media (e.g. sand media, peat, fabrics and plastics).</li> <li>10. Assess condition and performance of dispersal systems including at least the following types: gravity, pressure, combined treatment and dispersal systems, and drip.</li> <li>11. Perform flushing, jetting, vacuuming.</li> <li>12. Assess and maintain grease interceptors.</li> <li>13. Assess condition and performance of dosing systems including indexing valves, pumps, siphons, flouts and associated control systems.</li> <li>14. Make conclusions about system performance and condition.</li> <li>15. Make recommendations for repairs and improvements.</li> </ol> |
| 6.2 | Monitor the system                          | <ol style="list-style-type: none"> <li>1. Determine system flow volumes using control panel records, water meters or other means.</li> <li>2. Evaluate flow volume, compare to design capacity, with consideration of current occupancy and usage patterns.</li> <li>3. Conduct sampling for assessment of sewage and effluent characteristics, as per standard practice and requirements of testing labs.</li> <li>4. Conduct field tests of sewage and effluent characteristics including at least ph, temperature, turbidity meters, CBOD<sub>5</sub> field tests, dissolved oxygen probes.</li> <li>5. Evaluate pre-treatment performance using: Lab testing data, field test results. and visual and odour indicators.</li> <li>6. Assess solids accumulations in septic tanks and other components.</li> <li>7. Make conclusions and recommendations regarding system usage and subsequent maintenance frequency.</li> </ol>  |



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| 6.3 | Perform component repairs | <ol style="list-style-type: none"> <li>1. Diagnose performance shortcomings, troubleshoot system malfunctions.</li> <li>2. Prioritize corrective actions when performance emergencies occur (typically to mitigate health hazards).</li> <li>3. Perform component repair or replacement, including all those defined in the SPM Table II- 2.</li> <li>4. Install access provisions, filters, replace UV bulbs and replenish chlorination materials.</li> <li>5. Replace control system components.</li> <li>6. Install observation ports and other provisions for effluent sampling.</li> </ol>  |
| 6.4 | Create documentation      | <ol style="list-style-type: none"> <li>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.</li> <li>2. Demonstrate ability to create field notes adequate to support formal reports.</li> <li>3. Create report of maintenance for clients. Include flow monitoring data/panel records to support subsequent maintenance.</li> <li>4. Create simplified maintenance plan where none exists.</li> <li>5. Create and retain a permanent file with all records pertaining to the project.</li> </ol> |

## 7.0 Conduct inspections

- |     |  |   |
|-----|--|---|
| 7.1 | Determine the purpose and type of inspection | <ol style="list-style-type: none"> <li>1. Interview owner/system user, and obtain written declarations with usage information</li> <li>2. Determine if the purpose of the inspection is for system performance, compliance or other regulatory function</li> <li>3. Characterize sewage source and residence/facility use.</li> <li>4. Evaluate sewage flow volume and establish a design flow allowance.</li> <li>5. Retrieve and review any sewerage permits, filings or certification documents.</li> <li>6. Retrieve and review building plans, health orders, covenants, or easements.</li> <li>7. Obtain written permission to enter property and disturb the site.</li> </ol>  |
| 7.2 | Carry out system assessment and inspection   | <ol style="list-style-type: none"> <li>1. Select and use appropriate equipment and tools.</li> <li>2. Perform locating procedures including pipe camera methods and using electro-magnetic technology.</li> <li>3. Expose and access system components.</li> <li>4. Use pipe camera methods to assess condition and configuration of system components.</li> <li>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.</li> <li>6. Evaluate the treatment capacity of treatment plants, CTDS, and other treatment technologies.</li> <li>7. Assess performance of aerators, recirculation pumps.</li> <li>8. Assess condition and serviceability of filters, membranes, UV bulbs, chlorination materials.</li> <li>9. Assess condition and serviceability of filter media (e.g. sand media, peat, fabrics and plastics).</li> </ol> |

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.

**Registered Onsite Wastewater Practitioner (ROWP)  
Practice Guidelines**

January 26, 2017

**ROWP Practice Guidelines**  
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## 1.0 Purpose

The purpose of the Registered Onsite Wastewater Practitioner (ROWP) Practice Guideline is to provide pertinent information that is not readily available in other regulatory documents such as:

1. Ministry of Health Sewerage System Regulations (SSR),
2. Standard Practice Manual (SPM),
3. ASTTBC Act and Regulations,
4. ASTTBC Code of Ethics and Practice Guidelines, and
5. ROWP Certification Board Policy.

## 2.0 Regulatory Framework

### 2.1 British Columbia Government Acts and Regulations

The SSR and SPM provide the regulatory framework for onsite wastewater. The Applied Science Technologists and Technicians (ASTT) Act and Regulations specify the certification and registration requirements and criteria for individuals to be registered as Authorized Persons (AP) in British Columbia within the limits specified in the Sewerage System Regulation (SSR).

### 2.2 Standard Practice Manual (SPM)

The SSR establishes the SPM as a source of standard practice but also anticipates that other sources may be used. The inherent versatility in the regulation is required to support advanced design approaches such as custom design, performance-based design or innovative design by Professionals. A qualified Professional may do a custom design or other deviation from the SPM. A ROWP Authorized Person (AP) should adhere to the SPM.

### 2.3 Authorized Persons

The SSR requires that sewerage system design, construction and maintenance only be undertaken by or under the supervision of Authorized Persons (AP). An Authorized Person is a person registered with the Applied Science Technologists and Technicians of BC (ASTTBC) as a Registered Onsite Wastewater Practitioner (ROWP) or an individual registered with the Association of Professional Engineers and Geoscientists of BC (APEGBC).

### 2.4 Adherence to the SPM

The ASTTBC Act, Regulations and policies recommend that ROWPs comply with the SPM for all onsite wastewater projects in British Columbia. Deviating from SPM standards will increase ROWP exposure to liability and is a key consideration in any ASTTBC Practice and Compliance disciplinary procedure or other practice review process.

If a ROWP utilizes a standard other than the current BC SPM, that alternative standard should be one of those listed within the BC SPM. The ROWP must provide a rationale for the decision and demonstrate that the selected 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 other standards, the burden of proving diligence rests upon the ROWP.

## 2.5 Federal Jurisdiction and First Nations Land

The SSR may not be applicable for lands under federal jurisdiction within BC. On First Nations Lands, the policy of Aboriginal Affairs and Northern Development Canada and the First Nations Health Authority is that onsite sewerage systems are to be constructed following SPM standards. The First Nations Health Authority (FNHA) oversees Onsite systems on First Nation Lands and ROWPs must consult the Environmental Health Officer at the local FNHA office to determine if any local requirements also apply. Refer to <http://www.fnha.ca/>

## 2.6 Health Authorities and Environmental Health Officers (EHO)

Off Native Lands, Health Authorities and Environmental Health officers (EHOs) have statutory authority under the Health Authorities Act to:

- a) Administer and enforce the SSR.
- b) Carry out legal remedies such as orders or tickets.
- c) Accept sewerage system filing documents and letters of certification documents for systems and confirm that these meet the documentation standards of the SSR.
- d) Confirm that only Authorized Persons plan, construct or maintain installed onsite systems (or supervise same).
- e) Inspect and take corrective action to alleviate health hazards related to an onsite sewerage system.
- f) Receive and respond to complaints about health hazards.

## 2.7 Reporting Health Hazards

ROWPs shall protect the public interest at all times acting in a diligent manner to alleviate any potential health hazard and informing owners of their regulatory obligations to prevent health hazards. Suspected health hazards must be reported to the local Health Authority. The Ministry of Health has produced a Health Hazard Communication Guideline that describes procedures for Health Authorities, including additional examples of circumstances that may pose a health hazard. Refer to:

<http://www.health.gov.bc.ca/protect/pdf/health-hazard-communication-guideline.pdf>

## 2.8 Other Regulations

The SPM includes an extensive listing of other applicable regulations, policies and bylaws. The other regulations include the Industrial Camps Regulation, Riparian Area Regulation, Public Health Act, and the Drinking Water Protection Regulation. The Health Authority policies apply regarding subdivision of land, local bylaws and zoning, and restrictive covenants. Older systems installed prior to the SSR are described in the Sewage Disposal Regulation. ROWP Private Inspectors need to be familiar with the Sewage Disposal Regulation and other historical Acts, Regulations or Bylaws applicable to the system being inspected or assessed.

## 3.0 ROWP Practice in Onsite Sewerage

### 3.1 Ethical Business Practices

All ASTTBC members including ROWPs shall comply with the Code of Ethics. The Code of Ethics describes the principles of ethical conduct that ASTTBC members apply in their practice in order to provide duty of care to the public, the profession and their fellow members. <https://asttbc.org/wp-content/uploads/2015/10/ASTTBC-Code-of-Ethics-Practice-Guidelines.pdf>

### **3.2 Insurance**

To protect their clients, ROWPs should carry appropriate insurance for the different types of work they are registered for. While an Installer is best served by Construction General Liability (CGL), a Planner, Maintenance Provider and Private Inspector would need Error & Omission (E & O) coverage in addition to CGL.

In the event that the ROWP does not have insurance appropriate for their category of registration, full disclosure must be made to the client. This disclosure must be made in writing to the client and be contained within any estimate, quote or proposal to the client prior to the client accepting the ROWPs proposal. The ROWP is to obtain a signed and dated acknowledgement from the client, confirming that they have been so informed and wish to proceed.

### **3.3 Contracts with Clients**

ROWPs are strongly advised to have a written contract with every client clearly describing the scope of work, estimated dates for key deliverables, financial consideration, limitations and exclusions. ROWPs should not undertake a contract for anything other than a firm price, and be cautious of contracts containing contingency fee clauses. ROWPs should not submit any proposal to secure an engagement or assignment with a firm price or estimated cost lower than the realistic expected full estimated cost of the proposed engagement.

### **3.4 Oversight of Non-Authorized Persons**

Oversight of non-authorized persons (including non-ROWP staff, sub-contractors or home owners) a ROWP must be in charge and take full responsibility for actions taken by the non-authorized persons engaged in wastewater activity or tasks to ensure that they perform their work in accordance with the SPM. Oversight requires that the ROWP must be present on site while the work is being performed (continuous supervision required).

Planners are responsible for providing details, specifications, and interpretation of their design to aid an Installer through the construction work. An AP Planner cannot provide supervision or direction for the installation of a system by a non-AP unless the AP Planner is certified and registered as a ROWP Installer.

In order to certify the construction meets the intended design, the Planner must undertake construction reviews at key points through the construction process, and set these requirements within the design specifications in order that any Installer contracted to construct the system contacts the Planner on record prior to commencing the work, ensures they understand the design as set out by the Planner, and contacts the Planner at key stages or benchmarks during construction to ensure the work is substantially compliant with the Planner's design. Planners are to conduct system commissioning and testing before completing a Letter of Certification (LoC) for the system. The AP Planner should require the Installer to provide a written declaration that all aspects of the system were constructed substantially in the manner specified by the Planner and consistent with the SPM.

### **3.5 Project Files**

ROWPs must retain a hard copy or digital file containing all documentation associated to a project. If a ROWP becomes involved in a legal action, an investigation by the ASTTBC Practice Review Board (PRB) or undergoes a Practice Assessment Review (PAR), and



supporting documents for a project are not available, it will be very difficult for the practitioner to defend their actions.

Photographic evidence must be included in the practitioner's files. Photographs should be taken at key stages of the work. They should be taken in a manner that provides credible evidence to confirm compliance with critical standards and standard practice. Conclusions reached during maintenance service or private inspections should be supported by photographic evidence. Photographs showing soil conditions, test pits, and key performance boundaries such as horizontal setbacks and vertical separation should support site and soil evaluations.

### 3.6 Reporting Hazards and Unprofessional Conduct

ROWPs are expected to report issues that might affect the public interest, to such groups as the Provincial Emergency Program, the Ministry of Environment, and the local Health Authority. For onsite wastewater practice, identification and reporting of potential health hazards to the Health Authority is a key requirement. For example, any breakout of effluent to surface generally constitutes a potential health hazard and must be reported.

Concerns regarding the actions of ROWPs are to be reported to the ASTTBC Registrar. Concerns regarding a P.Eng. or a P.Geo. should be reported to APEGBC.

The role of regional Health Authorities, ASTTBC, and APEGBC regarding health hazards is described in the Ministry of Health publication *Health Hazard Communication Guideline* at <http://www.health.gov.bc.ca/protect/pdf/health-hazard-communication-guideline.pdf>

### 3.7 Adequate Knowledge and Honest Conviction

Statements regarding the condition or operation of existing systems must be supported by exposure and testing of components according to ASTTBC Inspection Guidelines as a minimum standard. Conclusions regarding site capability, system selection or system design must be supported by site and soil assessment, typically including excavation of test pits and soil permeability testing. This applies to estimates, preliminary proposals and quotations.

### 3.8 Stamp Guidelines

Use of the stamp is protected under the Regulations of the Applied Science Technologists and Technicians Act. The stamp can be used only by an ASTTBC – ROWP in good standing. The right to use the stamp is a privilege granted by ASTTBC under the ASTT Act. The privilege of using the stamp can be removed if not used in a proper and ethical manner.

**3.8.1 Ownership of Stamp:** The seal or stamp remains the property of ASTTBC and must be returned promptly at the request of the Registrar of ASTTBC. The charge for a member seal or stamp is a lease fee for an indefinite period, provided the Practitioner remains in good standing with ASTTBC.

**3.8.2 Application of Stamp:** The stamp must be applied in a clear and legible manner. The stamp must be used on any preliminary, draft or final documents that have been prepared by the Practitioner or prepared under the immediate supervision of the Practitioner. The normal signature of the Practitioner must be clearly shown in the space provided. The use of initials without surname is not allowed. The date the stamp is used must be noted.

### 3.8.3 Documents Requiring Stamp

- a) Transfer technical information; or
- b) Have a technical impact on a third party; or
- c) Have been specifically requested by a client or an authority having jurisdiction.

The stamp will be used for Filings, drawings and reports. The ROWP shall apply the stamp for work done only in the specialty endorsements in which certification and registration has been granted by the OWCB.

- a) Planners are to provide to the client and the Health Authority with Filing and Certification documents that have been stamped, signed and dated, that certify the system was planned in a manner consistent with standard practice and constructed in accordance with the plans and specifications filed with the Health Authority.
- b) Installers are to provide the Authorized Person who planned the system with a stamped, signed and dated Installer Letter of Certification which certifies that the system was installed in accordance with standard practice for installation and with the plans and specifications provided, and any written instructions received from the Authorized Person subsequent to the original accepted Filing.
- c) Maintenance Providers are to provide the client, and the Authorized Person who planned the system (if requested under the Operation & Maintenance Plan) with a stamped, signed and dated written maintenance service report describing the work undertaken, the reasons for doing the work, recommended date for the next maintenance & monitoring visit, and the overall performance and operation of the system.
- d) Private Inspectors are to provide a stamped, signed and dated report to the client that meets the requirements of the ROWP Practice Guidelines for Providing Inspection Service.

**3.8.4 Responsibility** The onus is always on the Practitioner to ensure that his/her application of the stamp is done in a legal, ethical and appropriate manner. It is the responsibility of the Practitioner to be aware of any legal or employer limitations or requirements on the use of the stamp. The Association will assist by providing general guidelines as necessary.

### 3.9 Quality Standards for Documents

Documents describing the design, installation, and maintenance of sewage systems shall include information that could be understood and used by various people potentially involved in some aspect of the sewage system. A full set of documents is required to support decisions made and actions taken from start to finish of a project. Some of the essential documents for a ROWP to rely on include the initial site assessment, soil assessments, signed statement of intended usage, the rationale for choice of system, the record of design, comprehensive construction specifications, and a maintenance plan. Reports intended for homeowners or other clients should explain the relevant points in such a way that a person with little knowledge of onsite wastewater systems understands what kind of system has been installed, why that system was selected, where the components are located, the importance of periodic maintenance, and the purpose of any risers to provide access to key system components.

### **3.10 Remaining Current with Regulation Changes**

ROWPs are expected to keep current with Ministry of Health communication bulletins and policy statements related to the Sewerage System Regulation (SSR) and the Standard Practice Manual (SPM).

## **4.0 Planner (PL)**

### **4.1 Limitations of ROWP Planners**

When planning an onsite wastewater system, the ROWP Planner is to obtain a signed Owner's Declaration describing the anticipated usage of the house or property and confirm the declaration against the design and features of an existing home/building or proposed plans for new homes/buildings. ROWP Planners must gain reasonable assurance that the sewage quantities and qualities for a proposed system are within the allowable limits as specified in the SPM for a ROWP. Where a ROWP has reasonable evidence to confirm or believe that the wastewater quality does not or will not meet typical residential sewage quality as indicated by the SPM, the project should be referred to a Qualified Professional (QP).

### **4.2 Parameters for Residential Sewage**

In some cases, sampling and lab analysis of existing sewage flows will be required. If existing or anticipated sewage falls outside the SPM parameters for residential sewage, the SPM standards for system sizing and configuration are generally not applicable. Commercial facilities may discharge sewage that falls outside the residential sewage parameters or wastewater with strength and flow characteristics equivalent to residential sewerage. Examples include restaurants, food processing services, bakeries, wineries, hair salons, car washes, laundromats, RV sewage services and sani-dumps.

### **4.3 ROWP Planner Construction Review Responsibility**

When the ROWP Planner is the Authorized Person (AP) and is not the installer, the AP must provide adequate construction review to be confident and satisfied that the system was installed substantially as planned. To be confident that the construction review is adequate the Planner should attend the site at a minimum of three key stages:

- a) At a pre-construction meeting, where plans and specifications are reviewed, proposed locations of components are confirmed, and construction techniques are discussed to ensure the system will be constructed substantially as planned.
- b) During construction typically before final backfill of tanks, before cover soil is placed on the dispersal system.
- c) At system completion, testing and commissioning.

### **4.4 Letter of Certification**

Within 30 days of construction completion, the AP that filed the Record of Sewerage System (RSS) must submit a letter of certification (LoC), record drawing and maintenance plan to the Health Authority. A copy of the LoC, Maintenance Plan and record drawing shall be provided to the owner. When the Installer is not the AP that planned and filed the system, the Installer shall provide the AP a signed declaration that the system was constructed substantially as per the specifications and plans provided by the AP and in compliance with standard practice for

installation. The Installer's ROWP stamp must be affixed. The AP shall keep the stamped and signed original declaration on file.

#### **4.5 Assessing Properties for Subdivision Applications**

Assessing properties for subdivision applications differs significantly from routine planning services provided by ROWP Planners as described in the SSR and SPM. Planning for subdivision of properties is not limited to determining which system type and configuration will meet SPM standards. Requirements for subdivisions are complex with multiple authorities each with their respective regulations.

Planners may provide services to support a client's application for subdivision approval. The subdivision-approving officer (person with jurisdictional authority for approval of subdivisions) typically refers the subdivision application to the local Health Authority for an opinion regarding suitability of the site for onsite wastewater dispersal. Health Authorities generally require a site/soil assessment by an AP as a condition of their recommendation.

Health Authority requirements are generally based on historic soil depth and area requirements for gravity dispersal. The requirements are not aligned with current SPM standards. The Planner must conduct the site/soil assessment in a manner that provides adequate information to support conclusions about both the Health Authority guidelines and the SPM standards. The Planner's report must indicate whether conditions on each proposed lot meet the requirements of the local Health Authority subdivision guidelines and must indicate which system type and configuration is required for full compliance with the SSR and the SPM.

Regardless of any specific direction from the Health Authority, the AP must determine and report whether each individual lot within a proposed subdivision plan has conditions that will allow at least two dispersal systems. For an undeveloped parcel, a primary and reserve dispersal area must be identified. For a parcel with one or more existing structures and sewerage systems, a reserve area must be identified, and each existing sewerage system (if intended for continued usage) must be inspected to confirm adequate performance, condition, size, and location.

#### **4.6 Grey Water, Privies and Composting Toilets**

The SPM does not include information that aids the Planner with grey water systems, reuse and recovery. Certain aspects of grey water reuse and recovery may be covered in the Composting Toilet Guideline being developed by the Ministry of Health.

Privies were permitted under the former Sewage Disposal Regulation (in effect until May 31, 2005), and a number remain in operation. Privies permitted under the former regulation must be upgraded, repaired or replaced when they no longer function, if they are potentially creating a health hazard or as required by a Health Officer.

Pit privies are not allowed under the SSR. However, the Health Authority may permit vault privies as a holding tank. Also, pit privies may receive Health Authority approval for use within temporary work camps (as per the Industrial Camps Regulation for non-permanent camps of less than one year). ROWPs must ensure compliance with all regulations applicable to privies and any direction from a Health Officer.

## **5.0 Installer (IN)**

### **5.1 Obligations to Ensure Compliance**

Installers must ensure systems are constructed in compliance with the SSR, including the horizontal separation requirements between system components and any well. Installers must construct systems in accordance with standard practice for installation. ASTTBC requires Installers to follow the SPM standards and guidelines for installation. Installers share with the Authorized Person (AP) the obligations to construct systems in accordance with the SPM.

Before starting construction, ROWP Installers must have a complete copy of the plans and specifications prepared by the AP on record, including a copy of the Health Authority Record of Sewerage System (RSS) form clearly showing the 'accepted' stamp affixed by the Regional Health Authority office. Installers must notify the AP on record before construction begins and must provide reasonable opportunity for the AP to review the plans with the Installer.

The Installer must be familiar with, and construct in accordance with the plans, specifications and any other instructions provided by the AP on record. During construction, Installers must confirm that critical standards for vertical separation and horizontal separation distances are met by the system as constructed. The Installer must report in writing to the AP on record any site or soil condition that prevents installation in accordance with plans, specifications or the SPM.

### **5.2 Documenting Construction**

Installers must record, and retain on file, a log of construction that includes the starting date, key stages of construction and completion. Installers should create and retain photographs showing the site before, during and after construction as evidence of compliance with standard practice. Clear photographs with notation of the date, description and other information proving the construction was substantially in accordance with plans, specifications, and filing provided by the AP on record.

When an Installer is not the AP on record they must provide the AP on record a signed declaration that the system was constructed substantially as per the specifications and plans provided by the AP and in compliance with standard practice for installation. The ROWP stamp issued to the installer must be affixed to the written declaration. The AP that filed the Record of Sewerage System (RSS) shall, within 30 days of completion of construction of the system prepare and submit a Letter of Certification (LoC) as described in section 4.4.

## **6.0 Maintenance Provider (MP)**

The maintenance plan included as an attachment to the Letter of Certification is a regulatory requirement for the owner and a practice requirement for the Maintenance Provider. Any ROWP who undertakes maintenance and monitoring, or provides any assessment or confirmation of performance or functionality of an existing sewage system for a property owner prior to commencing an on-going preventative maintenance program, shall be certified and registered with the MP endorsement. Maintenance Providers must perform the maintenance and monitoring procedures specified in the maintenance plan as a minimum, and include a performance evaluation of the entire system, not simply one component or portion of the system. Maintenance must not be limited to assessment and maintenance of only the treatment hardware, except when such maintenance is prescribed by the maintenance plan, and/or when additional maintenance of the remainder of the system is scheduled and completed in a timely manner. The maintenance plan/maintenance frequencies may be

reviewed and amended after a specified period of system operation. At that time, the maintenance provider may establish a revised maintenance frequency and file an amendment to the maintenance plan (with or without the input of the planner) if he or she has the suitable level of competency to do so.

## **6.1 Compliance with Standard Practice Manual (SPM)**

The ASTTBC requires Maintenance Providers to follow the SPM standards and guidelines for maintenance practices. Maintenance Providers must provide the owner or client with a written report of maintenance performed or required after each maintenance visit is completed.

## **7.0 Private Inspector (PI)**

### **7.1 Regulatory Framework for Private Inspectors**

The SSR and the SPM do not stipulate that individuals providing onsite wastewater inspection services are to be certified or registered as Authorized Persons (AP). ASTTBC considers conducting accurate inspections and providing quality reports and other information on the condition of onsite wastewater systems of paramount importance. Any ROWP that provides services as an Inspector, or provides any assessment or confirmation of the performance or functionality of an existing sewage system other than for the purposes of maintenance, shall be certified and registered with the PI endorsement.

The ROWP is to offer an inspection tailored to the needs of the client while meeting the minimum inspection standards for either inspection type. The ROWP must ensure that an appropriate level of inspection and reporting is conducted to determine and explain both the findings as well as provide adequate information to defend and document conclusions. Any ROWP PI who undertakes an inspection must have the educational qualifications, equipment, competencies and experience to do thorough inspections.

There are two types of inspection: 1) Performance inspections; and 2) Compliance inspections.

### **7.2 Performance Inspection**

A Performance Inspection is intended to assist a prospective buyer with determining the condition of the onsite sewage system, suitability for the buyer's intended use or changes to the home or property, recommended or required maintenance, repairs or improvements with reasons for them, time frame for undertaking repairs and maintenance, information on who can undertake the work and how they can be contacted or located. This inspection can also be carried out on behalf of a property owner prior or during the listing of their property for sale as an aid for prospective buyers. May also be appropriate where a property owner wishes to understand the system and its performance for their own knowledge.

A Performance Inspection is to determine or include the following:

- a) System types 1, 2 or 3
- b) Explain the expected function as well as the actual function and condition of each component
- c) General location of each component on the property
- d) Location of any utilities in the vicinity of the onsite system
- e) Review of all existing permit/Filing documents and comparison with the system as installed

- f) Review of all existing maintenance records
- g) Review written where possible current or expected usage information collected from the occupant/client against the designed abilities of the onsite system
- h) Completion of a detailed report to the client on the condition, performance, and suitability for intended use and recommended or required repairs, maintenance or improvements to the system

### **7.3 Compliance Inspection**

A Compliance Inspection is intended to assist a property owner when making changes to the home or property subject to bylaw requirements for the change in use or additional structures being permitted. A Compliance Inspection includes all aspects of a Performance Inspection plus the following requirements:

- a) Detailed and precise recording of location and sizing of system components
- b) Comparison of the system as installed against the intended change within the building (additional bedrooms, floor space, occupants, etc.) or to the property (proposed swimming pool, workshop, landscaping or other structures or work) that may negatively impact the existing onsite sewage system
- c) Effort is to be made to collect and review all relevant supplementary documentation which may include the electrical permit, site survey/plans plans, and restrictive covenant, right-of-way, or other limiting condition information
- d) Submission of any reporting or approval form as required by a regional district or municipal bylaw prior to the issuance of a building permit or similar document
- e) A ROWP is to ensure that no report, statement or assurance of compliance letter is issued which cannot be substantiated by the information gathered during the inspection.
- f) A ROWP must expect that any report, statement, or assurance of compliance letter may be read by a third-party and that such a document may be relied upon to make material decisions unless the document specifies otherwise.
- g) A ROWP is not to certify, or otherwise make legal, a system that was not planned and installed under a valid permit or Filing.

### **7.4 Procedural Guidelines for Private Inspectors**

ASTTBC has developed a procedural guide for ROWP Private Inspectors (see 8.0 Annex 1) as a supplement to the SSR and the SPM.

## **8.0 Annex 1 – Guidelines for Providing Inspection Service**

### **8.1 Preparation**

The ROWP is to inform the property owner/manager of the access needed and all physical actions required for inspection, such as digging to expose a component. Their permission, preferably in writing, is required before commencing the inspection. The ROWP is to comply with all requirements or procedures as set out by the property owner/manager while on the property inspecting an onsite system.

The ROWP is to inform, and take steps to protect, all parties on the property from the physical, biological, and chemical hazards, which may be created temporarily in the area of the onsite system during inspection.

The ROWP is to fully disclose any potential conflict of interest to the client when such a situation may arise. This may result if the ROWP or their employer was previously involved in any manner with the onsite system. Written permission is to be received from the client before commencing the inspection.

### **8.2 To Locate, Expose and Test**

**8.2.1** ROWPs are to consider utility location and component materials when locating and exposing to prevent damage. All components are to be exposed in a manner that prevents unnecessary disturbance to the property and must be replaced so as to return the site as closely as possible to its original condition. Components are to be exposed by hand only, unless burial depth is confirmed as beyond 60cm or if there are large obstructions such as boulders or sloughing soils. In such cases, the ROWP may limit the inspection, or may arrange for the use of a machine through, and with the approval of, the property owner. The owner is to be provided with a full explanation of the risks associated to this action. To prevent damage, the ROWP may specify the type and size of equipment and should be on site to supervise any digging.

If components are located under structures, driveways or extensive landscaping, the ROWP may limit the inspection, or arrange through the property owner for the restriction to be cleared. The ROWP is not expected or required to dismantle structures or permanent features.

**8.2.2** Where a feature of the system or the property poses a hazard to the inspector or may break if tested or examined due to its condition, or if a full inspection is prevented, the ROWP is not required to proceed with the inspection. The ROWP is to fully inform the client of the limitation in writing.

**8.2.3** The ROWP is to use appropriate equipment for locating and testing components, and diagnosing problems. Pipe and tank cameras, electronic utility locating equipment, and hand-held photographic equipment, along with shovels, lifting hooks, probing and measuring tools as the minimum expected and additional equipment specific to a system may be required.

**8.2.4** The ROWP is to carry out a flow test to confirm all wastewater sources from the building arrive at the onsite wastewater system. The test shall only use sufficient water to confirm the arrival of the flow and not be allowed to continue for either a particular length of time or volume that is intended to “flood” or “stress” the onsite system. The flow test also aids with confirming whether a soapbox, grease trap or even a separate onsite sewage system serves the building or not. For a Maintenance Inspection, the ROWP may consider reducing the flow test to several water sources only to minimize time and costs to the client, however this should only be considered for a system that the ROWP has already inspected before and believes a more extensive testing is not warranted.



**8.2.5** Fluid movement within the components of the system including the dispersal area is to be tested against the requirements of the design.

**8.2.6** A dye test is not to be used as the sole system performance test.

**8.2.7** Effluent sampling (BOD, TSS) is to be done for all type 2 and 3 systems. Sampling of type 1 systems is at the discretion of the ROWP. The situation may also indicate testing of pH, FOG, ammonia, nitrate, influent, etc.

**8.2.8** The following components are to be exposed, examined and tested when present:

- a) A sewage basin located inside a building is to be tested for function when present but the ROWP is not required to open the sewage basin for further evaluation
- b) All tanks, chambers and treatment plants related to the onsite system at the inlet, outlet, dividing baffles and interior components
- c) All mechanical components or items with moving parts
- d) All treatment devices
- e) All dispersal area components designed to be viewed or tested

### **8.3 Records and Documentation**

**8.3.1** The ROWP is to store all field notes, reports, letters, photographs/videos, test results, etc. in a file devoted to each individual inspection performed. Each inspection file is to be easily and quickly retrievable and protected from damage on a permanent basis. Where no system plan is contained within a permit or Filing, or the plan available is found to be inaccurate or not as-built, the ROWP is to provide the client with either a basic but accurate plan, or a description of the key component locations with photographs such that the property owner may find the components in the future. The plan should:

- a) Be oriented to true north
- b) Be reproducible in black and white
- c) Be on 8.5 x 11, 8.5 x14 or 11/17 paper where possible
- d) Have lettering that is easily readable (minimum 2 mm height)
- e) Include the inspection file or reference number, location address, and date
- f) Show the suspected property lines or distances to them where possible
- g) Any wells, water sources, water bodies, breakouts, buildings & structures (approximate dimensions & locations), retaining walls or similar features that provide a reference to the onsite system components
- h) Approximate slope and direction of the slope on and around the onsite system

**8.3.2** For a performance inspection, a general sketch drawn to a scale is acceptable, or where this cannot be achieved, dimensions should be shown or detail drawings added. This is to include the access points for a septic tank, treatment plant, distribution box and the general dispersal area. For a compliance inspection, a more detailed and accurate reporting of measurements, including the location of the dispersal components and setbacks to any relevant portion of the system where a structure is to be built or added onto and setbacks to the onsite system need to be confirmed. A compliance inspection may be required if no filing is on record, and the owner needs the systems details for legal and/or home conveyance (sale) purposes.

## 8.4 Reporting

**8.4.1** The ROWP is to provide a written report, which is to include the following:

- a) Explanation of system type, expected function and components
- b) Information on the location of the system components, including a general diagram or photographic record for a performance inspection, and a detailed diagram for a compliance inspection
- c) Explanation of the current performance using the terminology as listed in 8.4.2 (written for the lay-person)
- d) Comparison of the system as installed with the permit/Filing documents
- e) Explanation of repairs and improvements
- f) Explanation of system maintenance requirements if included within the Filing documents or creation of simple O&M plan specific to the system being inspected and the client's needs if not included
- g) Explanation of the nature and exact locations of any problems, especially in the case of a "performance malfunction", "illegal or prohibited feature", or a "suspected health or safety hazard"
- h) System use and care information.
- i) If a compliance inspection, a detailed site/system drawing with confirmed setback distances, components, structures and utilities

**8.4.2** The following terminology is to be included and explained within the report:

a) ***This system is operating in a normal manner as intended by its design*** - this is when:

- All wastewater was confirmed to arrive at each component and travel through the system in a normal manner without wastewater backing up or being diverted;
- In a gravity distribution system, all dispersal pipes receive approximately equal flows, or, flows with variations not exceeding 10% for any one pipe;
- In a pressurized distribution system, all laterals receive approximately equal flows and the squirt height as measured at the ends of all laterals does not vary by more than approximately 10% from the original squirt height recorded at time of commissioning, or as compared to all other laterals;
- The effluent sample(s) taken from the treatment plant/process meet the permit/Filing document standards;
- For a lagoon, the effluent level is below the design freeboard;
- Where a treatment plant or process is installed, the results of laboratory testing will determine whether the effluent quality meets the requirements of the design. Even if all other aspects of the system are or appear in good order, where effluent strength exceeds the requirements, the system is identified to be experiencing a "performance malfunction."

b) ***This system is operating, but a partial restriction or backing up is occurring*** - this is when:

- All wastewater was confirmed to arrive at each component but was found to partially back up or was restricted at any component. This can be evident as a fluid level higher than the invert of the outlet pipe but not reaching the mid-point of an inlet or outlet pipe;
- In a gravity distribution system, all dispersal pipes receive flows however variations exceeding 10% but less than 25% for any one pipe was observed inside and along the runs of any dispersal pipe;

- At the end of a pump cycle or flow test, effluent is observed to flow backward into the distribution box from one or more distribution pipes;
- In a pressurized distribution system, flows are visible from all laterals, but one or more laterals had a variation greater than 10% from the original squirt height recorded in the system commissioning or as compared to the other laterals;
- For a lagoon, the effluent level is approximately at the designed freeboard.

c) **Performance malfunction** - this is when:

- The dispersal area has less Vertical Separation than required by the standards at the time of construction
- The fluid level is at or above the mid-point of any inlet or outlet pipe of any component;
- Any backing up is found in a pump chamber, siphon or other dosing device contrary to the normal operating level for that component;
- Wastewater is escaping or groundwater is entering from any point in the system contrary to plan/design;
- In a gravity distribution system, one or more dispersal pipes have no visible flow or variations of 25% or more are observed inside and along the runs of any dispersal pipe;
- In a pressurized distribution system, one or more laterals have no visible flow or variations of 25% or more are observed in any lateral during a squirt test;
- Effluent or monitoring port samples do not meet the requirements of the original permit or Filing document;
- Intrusion of solids into the dispersal area (high BOD due to inadequate septic tank maintenance) and diminished performance of CTDS, type 2 or type 3 technologies (no longer meeting the SSR performance standards);
- For a lagoon, the effluent level is above the design freeboard of the lagoon (normally 0.6 m below the top of berm).

d) **System operation could not be fully determined** - this is when:

- The ROWP could not gain access to the building to confirm where all wastewater flows travel to.
- The system has not been in use for several weeks and the ROWP has concerns that observations may not reasonably reflect behaviour and/or performance of the system when in actual use;
- The water supply into the building was not functioning;
- One or more components could not be accessed, potentially due to:
  - Depth of hand digging required is more than 60 cm below the surface resulting in a large excavation not anticipated or normally encountered,
  - Soils are very compacted and breaking through this layer could result in damage to a component below,
  - Soils contain large rocks, cobble, building debris, that may result in a large excavation not anticipated or normally encountered
  - High groundwater conditions over top of a component,
  - Landscaped areas where the disturbance required for gaining access to a component may upset the property owner and/or require additional restoration work that would add an unforeseen expense to the client's budget,
  - The component is inaccessible due to asphalt, concrete or other paving materials, a structure or other obstruction

- The effluent sample is about to be submitted to the lab. If an effluent sample could not be obtained, the reason should be explained in the report

e) **Illegal or prohibited feature** - this is when:

- It is suspected or confirmed that the system was installed without a permit or completed Filing document. This should be clarified in the report with all details given to substantiate the claim;
- There is an intentional or non-intentional diversion that could or is allowing effluent to escape continuously or seasonally from the system;
- The number of bedrooms or building floor space exceeds the original design of the system or the permit or Filing document issued;
- A second residence or building is connected which exceeds the original design of the system or the permit or Filing document issued;
- A sani-dump or other connection is installed that permits wastewater from sources other than this building to enter the system;
- A garbourator or other device is installed in the building and connected to the system if the permit or Filing documents state they are not allowed for this system;
- Backwash from, or floor drain around, a swimming pool or hot tub is connected to the system;
- Backwash or drain from water treatment equipment is connected to the system;
- A building, or extension to the building, was made over top a component;
- The system is partially/fully within a neighbouring property;  
Note: Only permitted if both property owners make a legal agreement that is registered on the land titles;
- Some or all of the system was modified, reducing horizontal setback standards as required at the time of construction;
- One or more components do not meet required setbacks;
- A residential system is receiving high strength and/or high volumes of wastewater; and,
- The type and/or volume is contrary to the intended design and is not permitted unless prior permission from the Authorized Person/Health Authority was obtained.

f) **Potential health or safety hazard** - this is when:

- A Biological Hazard may be present:
  - Effluent is or appears to be escaping the system to the surface;
  - Effluent is backing up into the building where the effluent is or could likely overflow at some point within a plumbing fixture or appliance; and,
  - Effluent is or has the potential of coming into contact with people in any manner that is or could pose a Health Hazard as defined under the Sewerage System Regulations, provincial *Health Act*, or any other regulation or act that may be applicable.
- An Electrical Hazard may be present:
  - An electrical health hazard is suspected or has been identified.
- A Physical Hazard may be present:
  - A severely broken, damaged, or unsecured lid, or a structurally unsound component that could pose a physical health hazard has been identified.

Where a PI discovers or suspects a health or safety hazard they should report the issue to the landowner immediately. Notification of the location and circumstances needs to be made to the local Health Authority, BC Safety Authority (electrical), local Building Department (electrical), Ministry of Environment, Environment Canada, Department of Fisheries & Oceans, or other appropriate agencies/authorities who will investigate and make a final determination whether such a hazard exists or not. The PI is required to make this notification under the ASTTBC Code of Ethics Principle 1 and 9.

- g) **Improvement** - a recommendation that could improve safety or performance, or prevent a malfunction or health hazard if implemented. Often, these are items that were not required at the time the system was installed, such as risers to the surface, an effluent filter, or other features on systems built pre-Sewerage System Regulations. A baffle still in place but showing deterioration (preventative maintenance), or a pump chamber that does not have a high level alarm are two examples of improvements which could prevent serious future problems.
- h) **Caution** - a component, device, or feature that while allowed or legal to use, can be a source of problems or a need for increased maintenance and monitoring of some or all of the system. Continuous flushing urinals, over-sized jet tubs, multi-headed showers and in-sink garbage disposals for example. If any of these items are specifically not allowed according to the information on the permit or Filing, the item also becomes an “Illegal or Prohibited Feature.”
- i) **Repair** - a requirement that affects safety or performance and is necessary regardless of the system’s age. A missing baffle (performance) or a cracked lid (safety) are two examples of repairs.

## 8.5 Completion

- 8.5.1 If the ROWP is concerned about the quality or function of any electrical works they are to inform the client and/or property owner of the situation and refer to a qualified electrician to assess and correct as required.
- 8.5.2 Where there are significant discrepancies between the Filing document and the existing system, the ROWP is bound by the ASTTBC code of ethics to report the situation to the ASTTBC for investigation.
- 8.5.3 Where the system is used in a manner that is contrary to its design or O&M Plan, the ROWP is to inform the client and warn of consequences to the performance and/or lifespan of the system.
- 8.5.4 Where the ROWP finds that there is or appears to be an error within the plan, installation, or maintenance of the system, the ROWP is to inform the client of the potential problem and contact the ROWP involved and/or the ASTTBC as is appropriate to resolve the situation.
- 8.5.5 Where a potential health or safety hazard is found, the ROWP is to immediately report the situation to the appropriate authorities.
- 8.5.6 The ROWP is to be prepared to act as an expert witness as situations observed during an inspection may become a legal matter with little warning.

- 8.5.7** Legal clauses such as waivers or statements limiting liability within a contract or report may not be supportable due to the nature of the work, and do not eliminate the responsibility of the ROWP to provide inspection services which meet due diligence requirements.
- 8.5.8** If the ROWP also provides planning, installation, or maintenance services that are identified to be needed during the inspection, care must be taken to prevent the perception of a conflict of interest. The ROWP must act in a neutral, unbiased manner at all times during the inspection. They shall not offer services to repair, replace or maintain the system, or promote a particular product or device which the ROWP sells, distributes or receives a fee for, until the inspection is completed and after ensuring the client is provided the names and contact details of other ROWPs in the area who can also provide such services.

## **8.6 Building Departments**

**8.6.1** Where a building department or regional district requires a ROWP to provide a letter or report on the performance or suitability of an existing sewage system as a condition of issuing a building or occupancy permit to the property owner or agent, the ROWP shall:

- a) Review original filings or Health Authority permits associated to the sewage system for size, intended use, and other conditions or restrictions that may apply;
- b) Review building plans, building permit applications and related documents provided by the property owner or agent to determine if a change in size, function and/or location of a building, or other structure will or could negatively impact the sewage system;
- c) Conduct and document an inspection of sufficient thoroughness to confirm location, performance and compliance with the standard “of the day” of the sewage system in relation to the building or occupancy permit. ROWP Private Inspectors are to follow the Guidelines for Inspection as listed in Appendix ‘G’ and all other ROWPs are strongly recommended to adhere to these Guidelines to reduce their liability.

**8.6.2** Where conditions are favourable to support the building or occupancy permit, the ROWP shall:

- a) Provide the property owner/agent and building department/regional district with a stamped, signed and dated report explaining reasons in support of the permit, or a letter in a format requested by the authority requiring the review. The report or letter should reference plans, detailed drawings, or other significant documents examined during the review as being stamped, signed and dated by the ROWP confirming these were the documents examined.
- b) Stamp, sign and date all copies of building plans being submitted by the property owner, preferably near the lower right corner of plans or detailed drawings, with a note clearly stamped or written above stating “Reviewed in relation to sewage system only”. This is to ensure other parties reading the letter or report do not assume the ROWP is taking responsibility for any other aspect of the project than specified within the letter or report and only as it relates to the sewage system serving the property in question.

## 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)

1. 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.
2. A Practice Assessment Review (PAR) may be initiated when:
  - a. An ASTTBC Member voluntarily requests a review of his or her practice.
  - b. A Member is identified by the PRB through random selection.
  - c. 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.
  - d. The PRB requires PAR as a censure condition resulting from the investigation of a complaint.
3. 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.
4. The Practice Assessment Review (PAR) shall include but is not limited to the following actions:
  - a. 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.
  - b. Examination of the Member's record of continuing professional development (CPD).
  - c. 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.
  - d. 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.



5. Upon completion of the PAR, the Reviewer shall write an evidence-based<sup>1</sup> report to be submitted to the Registrar. The report shall include succinct, factual information including:
  - a. The name of the Member and the reviewer,
  - b. The process and rationale for selecting the Member,
  - c. PAR processing dates,
  - d. Specific action undertaken during the review process,
  - e. 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.
  - f. Specify the requirements to improve practice and competencies to achieve the applicable minimum standards.
  - g. Recommendations for subsequent action.

The findings and recommendations for subsequent action shall fall within one of three categories:

- a. *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.

- b. *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.

- c. *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<sup>2</sup> of the PRB decision to temporarily revoke the certification and registration of the Member.

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

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

6. 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.
7. 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.
8. 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.
9. For Registered Onsite Wastewater Practitioners (ROWP) the requirement for Initial System Review (ISR) shall be replaced by PAR.
10. 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.
11. 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 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<sup>3</sup> 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://cpd.asttbc.org/>
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.

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<sup>3</sup> 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

#	Type	Activity Description	Record Requirements
1	Employment / Working	Employed or self-employed in a technology-related business or field including leadership, management or supervisory functions or teaching.	Claim 1 CPD point per month you were employed or actively seeking employment to a maximum of 12 points per calendar year.
2	Formal Learning	Formal learning at a post-secondary education institution completing courses related to the work you do or plan to do.	Claim 1 CPD point for every 10 hours of education or training completed.
3	Non-formal learning	Non-formal learning including self-directed study, seminars, workshops, webinars, technical field trips, or on-the-job training.	Claim 1 CPD point for every 10 hours of non-formal learning activity.
4	Non-formal learning	Non-formal learning by reading books, journals or technical publications related to the work you do or plan to do.	Claim 1 CPD point for every 10 hours of reading.
5	Non-formal learning	Non-formal learning by writing technical papers, articles, chapters or reviews that may be published in journals, books or submitted for professional or commercial purposes.	Claim 1 CPD point for every 10 hours researching or writing.
6	Presenting	Presenting or teaching a course or training program related to your discipline or professional practice.	Claim 1 CPD point for every 10 hours of education or training planned or taught.

7	Presenting	Presenting at conferences, workshops or seminars related to your discipline or professional practice.	Claim 1 CPD point for 10 hours preparing and giving a presentation. No CPD points for repeating the presentation.
8	Volunteering	Volunteering on education boards, industry advisory committees or similar profession-related organizations or associations.	Claim 1 CPD point for every 10 hours preparing for or attending meetings either in person or by teleconference
9	Volunteering	Volunteering on the ASTTBC Council, Board of Examiners, Practice Review Board, Accreditation Board, a Technical Specialist Certification Board or a Committee.	Claim 1 CPD point for every 10 hours preparing for or attending meetings either in person or by teleconference
10	Volunteering	Volunteering as a File Reviewer for the Board of Examiners or Technical Specialist Certification Board.	Claim 1 CPD point for every 10 hours reviewing files or attending meetings either in person or by teleconference
11	Volunteering	Volunteering as a member of an accreditation audit team.	Claim 1 CPD point for every 10 hours of accreditation activity including review of materials, site visits, audit team meetings.
12	Volunteering	Volunteering as an ASTTBC mentor or mentee.	Claim 1 CPD point for every 10 hours of activity.
13	Attending	Attending ASTTBC AGM or awards event (TARC)	Claim 1 CPD point per event
14	Other	Other activity you consider as professional development.	Claim 1 CPD point for every 10 hours of activity.

## 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

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:** Approved by Council September 25, 2014. 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.