

Standard Practice Guidelines For Private Inspectors

Preamble

A Registered Onsite Wastewater Practitioner (ROWP) registered in the category of Private Inspector, whether Residential or Commercial, must carry out inspections that meet or exceed the standards described in this policy. This policy, as recommended by the British Columbia OnSite Sewage Association (BCOSSA) and accepted by the ASTTBC Practice Review Board, provides for a consistent, uniform approach for the role of the ROWP - Private Inspector, to protect the interests of the consumer and public health.

1. ROWP Private Inspector shall:

1.1 Provide two types of inspections based on the requirements of the client.

1.2 A **Performance Inspection** shall confirm:

- i. the Treatment Method Type, and,
- ii. the structural and operational function or condition of the components of the system including the dispersal site or field, and,
- iii. the general location of the components of the system on the property, and,
- iv. the daily flow rate as prescribed in the Sewerage System Regulation, Standard Practice Manual for the building(s) being served by the onsite sewage system compared to the previously issued Authorization to Use, or the final filing document.

The Performance Inspection is generally sufficient for Real Estate transactions.

1.3 A **Compliance Inspection** shall confirm all aspects of a Performance Inspection with an additional emphasis on:

- i. determining and recording a more detailed and precise location of the system's components including the dispersal site or field pipe works with the absorption field, and,
- ii. determining and recording a more detailed and precise sizing and dimensions of the system's components, and,
- iii. reviewing the previously issued Authorization to Use or final filing documents including mandatory operation and maintenance records.

The Compliance Inspection is generally sufficient for:

- i. property owner wishing to increase the number of bedrooms or living area, or adding a suite for a separate residence area, or,
- ii. for a commercial/institutional facility wishing to change wastewater quality or quantity, or,
- iii. a property zoning change is being requested, or,
- iv. any reason that requires the evaluation and comparison of an existing system to a variation under which the original system Authorization to Use or final filing documents were issued.

1.4 Where an ROWP is required to write a **Letter of Assurance, Compliance, or other such letter** as required by a property owner, building / engineering / planning department, or other authority or agency, the ROWP must carry out an inspection of sufficient thoroughness and in a form best suited for the specific requirement in order to produce the letter. This should include the reasoning, calculations, as-built plans, and/or any other details that substantiates and explains how the decision or conclusion was reached.

1.5 The previously issued Authorization to Use or final filing documents, electrical permit information where applicable, engineered plans where applicable, operation and maintenance records, and restrictive covenant, right-of-way, or other limiting condition information, well water test results, and any other supporting information **should** be on hand for a performance inspection and **must** be on hand for a compliance inspection.

1.6 For a performance or a compliance inspection, the ROWP must obtain written information from the client about the proposed usage of the system (if purchasing) or current and future usage if changes are anticipated (current owner or prospective buyer) to verify whether it is consistent with the designed abilities of the system.

2. Before The Inspection:

2.1 The ROWP must have permission from the property owner / agent to enter the property and conduct the inspection, and when possible, it should be in writing. The property owner / agent must be fully informed about what the ROWP intends to do during the inspection, i.e. dig to expose components.

2.2 The ROWP must inform the property owner / occupant / agent about the hazards involved, i.e., trip hazards, fall hazards, biological hazards, which may temporarily appear around their property due to the inspection. By law, a person is responsible for any hazard that they create or exacerbate and the ROWP shall take appropriate measures to minimize the risks to themselves, their employees, and any other people that may happen through their work zone.

- 2.3 When at a commercial / institutional / construction site, the ROWP may also need to have authorization from the principal of a school, the chef of the restaurant, or the supervisor of a work site, or similar situation. The ROWP must confirm with the property owner/client if any person is to be notified, have contact information with this other person, and arrange in advance to set a date and time for the inspection. If the site has specific safety or security requirements, such as wearing safety vests, hard hats, signing in and out, etc., the ROWP must adhere to these site requirements at all times.
- 2.4 The ROWP must inform the property owner / agent that there is a risk that minor damage to the components, (i.e. a cracked lid becomes broken) may occur. That issues may be found, (i.e. a deteriorating distribution box) that would not have been caused by the inspection but would be an existing condition and is only noted because it is exposed.
- 2.5 Where the ROWP is asked to conduct an inspection on behalf of the prospective buyer or the property owner and the ROWP finds that he/she or the company that they are associated with Planned / Designed / Installed / Maintain(s)(ed) the system in question, the ROWP must immediately provide full disclosure to the client to prevent any perception of a conflict of interest. The client must be informed that they can choose any other ROWP Private Inspector to carry out the inspection and should be directed to the ASTTBC website or the local phone book as a source of other ROWP's. If the issues have been fully disclosed and the client does not object, the ROWP may continue with the inspection subject to obtaining written permission from the client.

3. During the inspection:

- 3.1 Components must be located in a safe manner with the least risk of damage to the component or to any utilities that may be in the vicinity.
- 3.2 The exposing of components must be done by hand only and in a manner that leaves the property neat and clean at the conclusion of the inspection.
- 3.3 The sod, if applicable, and soil must be placed onto tarps, or another form of containment in such a way that it is easily restored.
- 3.4 If a component is not reasonably accessible by hand due to depth beyond 60cm, large rocks or other obstructions, compacted soils, sloughing soils or a combination of these, the use of a mechanical device is at the discretion of the ROWP. The property owner / agent must be fully informed of the issue and give specific written permission, above and beyond the permission originally granted to carry out the inspection, for the use of any mechanical device. It may be left up to the property owner / agent to arrange for such equipment but the ROWP should specify the type and/or size of equipment, whether tracked excavator, rubber tired

backhoe, skid-steer or other machine depending on site constraints, potential for soil compaction or erosion, or other reasons.

- 3.5 As per WCB requirements and normal construction practice when working in or around any utility, during any work with a mechanical device, a competent person must act as a “spotter” and be on hand to use a probe, shovel, and/or other tools to guide the mechanical device “operator” down to the component.
- 3.6 Reasonable access is assumed when carrying out an inspection. Where there are sensitive items such as landscaping or decking over top a component, special written permission above and beyond the permission originally granted to carry out the inspection, must be obtained from the property owner / agent, and it may be left up to the property owner / agent to arrange for a trades person to dismantle the item restricting access.
- 3.7 Where components are located under a more permanent structure, i.e. a paved driveway, a concrete foundation, or there is an unsafe condition such as lids that are too large/ heavy/awkward to lift or that may break, the ROWP is under no obligation to expose the component as it is not practical. The ROWP must make note in the inspection report of the limitation or restriction of the inspection.

4. The components that must be exposed, as applicable to the system, are:

- a **Home/Building:** perimeter drain sump and/or or pipes to ditches or other outlets, sewage basin in lower floor to be tested and noted but not dismantled.
- b **Septic/Trash/Surge/Clarifier Tank:** must view inlet and outlet “tee’s” or baffles, dividing baffles, any other interior components.
- c **Grease Trap/Interceptor:** must view inlet, interior components, and outlet.
- d **Soap Box:** must view inlet, interior components, and outlet.
- e **Treatment Plant:** must view inlet, interior components, and outlet.
- f **Pump/Siphon Chamber:** must view inlet, interior components, and outlet.
- g **Disinfection Unit:** must view interior components.
- h **Distribution/Splitter Box:** must view inlet, interior components, and outlets.
- i **Dry Well:** must view inlet and interior.
- j **Distribution:** must view automatic sequencing valve i.e. Hydrotech
- k **Final Dispersal Area:** must view the clean outs at the ends of pressurized laterals, balancing valves, monitoring/sampling wells, interceptor drainage discharge points, and/or the lagoon.

5. Procedural and Documentation Requirements:

- 5.1 The ROWP must examine and test components, record observations, and keep a photographic record, as applicable, of each inspection in accordance with the requirements stated in the Maintenance Provider courses ES 950 and 951.
- 5.2 The ROWP must have or have access to appropriate equipment for locating and testing the components of the system, and finding and accurately diagnosing problems. Such as but not limited to: pipe video cameras, electronic locating equipment, measuring equipment, hooking tools to activate pump floats, etc.
- 5.3 The procedures must include the functional testing of all electrical and mechanical components including but not limited to pumps, floats, alarms and control panels to ensure that they are in good working order. If the ROWP observes or suspects any safety issues with wiring, connections, or other electrical components, they must inform the property owner and/or client of the issue and that an electrical Field Safety Representative should conduct an inspection of the electrical system.
- 5.4 The ROWP must confirm that flows from each toilet, tub/shower, kitchen sink and clothes washer/laundry tub arrives at each component in a correct and normal manner.
 - 5.4.1 The running time of any sink or bathtub should only be sufficient to confirm the arrival of the flows, confirm that there is only one system in operation at this property, and that there is no diversion of wastewater from the home/building. The run time of each fixture/appliance is not to exceed 3 minutes.
 - 5.4.2 The flow portion of the testing is not intended to be a “flood” or “high volume” test as this could overwhelm or damage the system.
 - 5.4.3 The ROWP must not carry out a “flood”, “high volume” or other form of “stress” testing.
- 5.5 When access to the home/building is not available or the water is turned off, the ROWP must make note in the report of the limitation to the inspection.
- 5.6 When the home/building is vacant or has not been in regular use for a week or longer, a flow test may be conducted, but the ROWP must make note that the system has had a period of rest and the behavior of the system may not be representative.
- 5.7 Flows must also be observed between the initial components and the final dispersal method. In a pressure distribution system, the squirt height shall be tested and compared to the original design requirements and irregular behaviour noted. In a gravity distribution system, flows through a distribution box into the dispersal pipes shall be observed and backing up or irregular performance prior, during and immediately after the test shall be noted.

5.8 Dye testing should be used to observe key behaviors, especially in the dispersal area, and at any other point in the system as the ROWP deems useful or necessary.

5.8.1 A dye test alone is not sufficient to confirm the performance or suitability of a system, but is simply another tool to be used in conjunction with other testing procedures. The lack of dye emerging from any point of a system during the inspection is not conclusive proof that the system is functioning correctly and safely.

5.9 Where a treatment plant or treatment process is present, an effluent sample must be taken from the appropriate sampling point in the system to ensure it is operating to a performance level as required by its plan/design. An effluent sample may also be taken from a Type 1 system if the ROWP has a reason to believe the system is receiving effluent of a strength or quality beyond what is normally expected for that system. Besides BOD and TSS, the ROWP may need to consider pH, FOG, ammonia, nitrate, and other items depending on the system being tested and the ROWP's observations.

6. Report To Client (Common to All Inspections):

6.1 The ROWP must provide the client with a written report.

6.2 The written report must include the following:

6.2.1 Description of the type and components of the system.

6.2.2 Evaluation of the system's current performance.

6.2.3 Evaluation of the system's operating plan or original permit information in relation to the actual system found and the proposed usage, i.e. the existing system is rated for a 3 bedroom home, but the proposed usage is for 4 bedrooms, or an existing church that intends to include a daycare and catering business.

6.2.4 Required repairs and recommended improvements.

6.2.5 Maintenance requirements which may exist in any one of the following locations:

(a) Permit to Construct

(b) Authorization to Use

(c) For Engineered or "Protocol" or "Innovative" or Code of Good Practice System they may be found on the Engineer's Drawings and Specification

(d) Final Filing Documents

A Maintenance Schedule should be created if no maintenance plan is on file and the system was built prior to May 31, 2005. The ROWP must demonstrate to the client what, where, when, and how the required maintenance needs to be done. If the system was built after May 30, 2005, the ROWP must review the maintenance plan with the client to ensure that they understand what is required and that the maintenance provider is or appears to be doing a suitable job based on observations made during the inspection.

6.2.6 Recommended do's and don'ts.

6.2.7 For a Compliance Inspection, in addition to the items listed above, a detailed plan showing the confirmed location of components and the overall system must be made. Confirmation of distance from property lines, wells, ditches, streams, breakout points and similar items must be noted.

6.2.8 Where an ROWP is informed by a property owner that any form of construction is or may be carried out on the property; the ROWP shall locate and confirm the exact position of all components and mark out a "safe zone" around the system to protect all components from damage. This shall include areas above, on, below and to the sides of the absorption field. The ROWP must be satisfied that the work will not compact soils, harm interceptor drainage, redirect surface water, cause erosion to soil cover, or cause any other damage. The ROWP shall ensure that the property owner clearly understands the reasons for this measure and shall coordinate with the person in charge of the construction to determine the safest means to move machine and materials through the property.

7. Terminology To Be Used:

The following terminology is recommended for use in the reporting process.

1. **Repair:** A requirement that affects safety or performance and is necessary regardless of the system's age. A broken lid or missing outlet baffle, for example.
2. **Improvement:** A recommendation that could improve safety or performance, or help to prevent a malfunction or failure if implemented. Installing risers, an effluent filter, or other features on systems built pre-Sewerage System Regulations.
3. **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-head showers and garburators for example.
4. **Performance Malfunction:** A system that is not functioning, in whole or in part, as intended or required by design or regulations, but should be correctable if

specific action is taken. A backing up of the distribution box or septic tank, or irregular flows through an absorption field or mound that creates hydraulic overloading to any portion of the system but can be corrected by repairing a broken pipe, cleaning solids out of pressurized laterals, fixing a leaking toilet, sealing a riser joint where groundwater is entering, are examples.

5. **Suspected Health Hazard:** A system that permits domestic sewage or effluent to escape containment or treatment as required by its Authorization to Use, final filing documents, and/or Standard Practice Manual and in so doing is, or has the potential of being, a Health Hazard as defined by the Sewerage Disposal Regulations, the Health Act, or other Act or Regulation. Effluent ponding, breaking out to the surface, discharging to surface or tidal water, are examples. Where an ROWP discovers such a condition they must report the location and circumstances to the local Health Authority who will investigate and make a final determination whether a Health Hazard exists or not.

6. **Illegal or Prohibited Feature:**

A modification made to a system in order to:

- a) add additional wastewater from a source other than what the system was designed for, i.e. a sani-dump connection, second residence, pool backwash etc.
- b) divert, release or otherwise bypass the system at any point, i.e. a french drain, soapbox installed after 1975.

A system that is working outside of its designed parameters, i.e. a residential system receiving high strength or process wastewater, a garbage disposal is installed in the home when the permit, filing document, or design expressly prohibits its use.

A system that is proven to have components extending into a neighbouring property without proper authorization.

Access to any part of the system can only be achieved by entry into the home/building due to an extension of the structure after the component was installed.

8. After The Inspection:

8.1 If the ROWP finds that there is or appears to be a problem with what the Planner / Designer / Installer / Maintenance Provider has done, the ROWP must inform the client, the local Health Authority/Filing Agency, ASTTBC, and any other agencies or persons as the ROWP deems necessary and prudent, of the circumstances.

8.2 When there are significant discrepancies between the filing document and the existing system, or if the system is being operated contrary to design and/or to the Operating and Maintenance Plan, the ROWP must inform the client and the local Health Authority/Filing Agency.

8.3 Where a system is found to be operating in a manner that is or has the potential to be a "Health Hazard" as described in the Sewerage System Regulation, the Safety

Standards Act, and/or the B.C. Electrical Code, the ROWP must follow the ASTTBC Code of Ethics with special attention to Principle 1 and Principle 9. The condition must be reported as soon as possible to the local Health Authority, B.C. Safety Authority, Environment Canada, and any other agencies or persons as the ROWP deems necessary and prudent.

- 8.4 Where a system is found to be in need of repairs, improvements or maintenance, and the ROWP is registered in that capacity, the ROWP conducting the inspection must inform the client and/or property owner that their role is first and foremost as a private inspector. To prevent any perception of a conflict of interest, any subsequent work to correct problems found during an inspection must only be done if the client and/or property owner are informed that they can choose any other ROWP in the required category to carry out this work, are directed to the ASTTBC website or the local phone book as a source of other ROWP's, and any other measures that can be taken to ensure their decision is freely made and without obligation or special consideration.
- 8.5 The ROWP is responsible for ensuring accurate, detailed information is obtained, recorded, and filed in their office for each system they inspect.
- 8.6 During an inspection, the ROWP may observe conditions, features, events or other circumstances that have the potential to become a legal matter. The ROWP must be prepared to act as a witness to such matters. Diligence with careful documentation and the appropriateness and thoroughness of the inspection is essential.
- 8.7 Waivers, limitations or other legal clauses used by the ROWP in documents given to a client do not alleviate or reduce the ROWP's obligation to carry out an inspection in a form best suited for the client and with appropriate due diligence.