

Approved Minutes of the Technical Advisory Committee Meeting  
April 19, 2022

**Participation by videoconference**

<b>Attendees:</b>	Cristin Ashmankas	Bruce Douglas
	Denise Johnson-Terk	Bryan Harrington
	Chris Tomberg	Lisa Stevens
	Carl Fuller	Karen Adams
	Craig Jewett	Justin Willis
	Ernie Christianson	Roger Thompson
	Dick Bachelder	Gunner McCain
	Steve Revell	Anna Gallagher
	Scott Stewart	Terry Shearer

**Scheduled meetings:**

May 17, 2022	Virtual
June 21, 2022	TBD
July 19, 2022	TBD
August 16, 2022	TBD
September 20, 2022	TBD
October 18, 2022	TBD
November 15, 2022	TBD
December, 20, 2022	TBD

**Minutes:**

The draft minutes of the March 15, 2022 meeting were inadvertently not circulated to the TAC prior to the meeting. They will be reviewed and accepted at the next meeting. Bruce will be sending information in an email to the TAC rather than attaching information to the Microsoft Teams® meeting notice. Ernie said that the meeting notice should be sent to the State Library system.

**Proposed Changes to the Wastewater System and Potable Water Supply Rules (Rules):**

Bruce had previously circulated a list of proposed changes that had been prepared in 2020 and updated on March 12, 2022. These have recently been checked by Jordon Gonda, Department of Environmental Conservation (DEC) counsel, who said they are generally in good shape for the start of the adoption process. These are viewed as mostly “house-keeping” changes

or changes in response to the Legislative action or changes to related Environmental Rules. The TAC discussed possible additions to the list.

The TAC considered a recommendation to revise the language related to sanitary sewer service lines. This is the pipe from an individual building to a septic tank and onward to a leachfield or to a public or private sewer collection system. When the 2019 version of the Rules were adopted, §1-1002(g) added a requirement for a minimum burial depth of 4' for all portions of the sewer line unless the DEC grants approval for an alternate design. The prior version of the Rules, adopted in 2007, and previous versions of the Rule, only specified a burial depth when under driveways. The greater burial depth adds cost for construction, including insulation or other methods as part of a request to reduce the burial depth. It also creates design problems because the maximum depth of a system into the naturally occurring soil is 36" which requires the sewer pipe to be less than 36" to ground level. The group was unaware of significant problems with designs prepared according to the 2007 Rules and recommended returning to the 2007 language.

Scott suggested that the diagrams currently included in appendix C be moved into the body of the Rule so that they will be easily viewed while reading the related text. Some of the diagrams are referenced in more than one place in the text. The diagrams are used as part of the testing program for Licensed Designers. There was support for Scott's suggestion as well as for keeping the present location. When asked, Bruce said that reformatting the Rule to place the diagrams in the text would take quite a bit of time. The TAC supports a quick adoption process that will be followed in short order by a more complete update. Steve moved that the diagrams be left where they are for the moment but that there should be further consideration in the next update. The TAC voted with 10 members in favor of the motion, and none opposed.

Bruce said that the DEC is considering a revision to the process for a boundary line adjustment which appears as §1-304(9) in the Rules. The current process requires that a plan of the proposed boundary line change be prepared by a Licensed Designer or a Land Surveyor. If the proposed change meets subsection (i), (ii), or (iii) of §1-304(9)(A) it is then recorded and indexed in the municipal land records. If the proposed change is based on subsection (iv) of §1-304(9) of the Rules, a request is filed with the DEC. The request is reviewed and if the DEC agrees that the proposal satisfies subsection (iv) a letter is issued which must be recorded and indexed in the municipal land records. The DEC is considering a change so that determination of compliance with subsection (iv) will be made by a Licensed Designer. Karen asked if a written determination would still be made. A written determination of compliance made by a Licensed Designer would be recorded and indexed in the municipal land records. The DEC is considering this change to reduce the time required to complete a boundary line adjustment and to reduce the DEC workload. Bruce noted that the existing process does not result in a numbered document that can be easily found nor is the document posted online with the permits that have been issued by the DEC. Subsection (iv) states . . ."the Secretary makes a written determination that the proposed adjustment will not have an adverse effect on any existing potable water supply or wastewater system on the affected lots." Gunner asked if this proposal might make a Licensed

Designer a target for an attorney who wants to argue about the language in subsection (iv). For instance, would transferring land that would be suitable for an inground system while keeping land for a fully complying mound be considered an adverse effect. The TAC suggested adding language to the Rules that would clarify the Rules. Karen moved that DEC proceed with the proposed change. The motion was supported with 11 members in favor, and none opposed.

### **Innovative/Alternative Systems:**

Cristin said she would like to make it clear in the Rules that Septic Tank Effluent Pumping (STEP) systems are acceptable in Vermont. She suggested that one step would be to add the Orenco STEP system to the list of approved products. The Orenco Company supplies a full design package that allows a user to make a quick assessment of whether the system might work for them. The system may be appropriate for private use in a multi-lot development or for a portion of a municipality. The installation, operating, and maintenance costs are less than for traditional collection systems. A Licensed Professional Engineer can also design a system from scratch using pumps, chambers, piping, etc. based on the site-specific conditions. This might be a good topic for continuing education training. The TAC supports this approach.

An application for General Use Approval for low-strength wastewater has been submitted for the SludgeHammer® system. This is a fixed film with aeration system. The treatment components are installed in the septic tank. It appears that only aerobic treatment occurs prior to discharge to the leachfield. Operation of the system requires periodic addition of a proprietary SludgeHammer Blend™ material. There are several units for different design flows and residential or commercial use. Some units have NSF approval for systems meeting the 30 mg/l BOD and 30 mg/l TSS limits. These limits allow for use the Filtrate Effluent design standards per §1-904 of the Rules. The system is currently approved for use in Minnesota, Colorado, Alabama, and Ohio. The number of installations is not documented in the application. A few similar systems have been installed in Massachusetts. The application states that electricity costs are expected to be about \$74 per year at \$0.14 per kWh. Gunner asked if there is an alarm system for high sludge level and there is not. There is an alarm for the failure of the air pump. Craig asked about the replacement process for the fabric screens in the tank. Replacement appears to require entering the tank. The TAC discussed this application and expressed concerns about the limited history and the lack of a primary treatment tank prior to treatment tank. The TAC asked if a Pilot Use Approval might be appropriate. Also discussed was the question of adding an advanced treatment system to an existing failed system and the group thinks that the existing system should be reviewed for health risks such as lack of separation to the Season High Water Table and potable water supplies. This question applies to all advanced treatment systems.

A renewal application for the ClearPod™ treatment system has been received. The original application was approved in 2018 and expired in 2021. The DEC has received comments from service providers that the system did not seem to improve the operation of the wastewater system. Some ClearPod™ systems have been installed that then flow to another advanced treatment system. The ClearPod™ did not significantly improve the overall treatment of the

wastewater based on samples that were collected and analyzed. The TAC suggested that DEC contact the vendor and ask if they can provide additional information about the system.

Bruce asked about the Lixor® System. This is an aeration system that is approved for general use and treats the wastewater to meet the 30 mg/l BOD and 30 mg/l TSS Filtrate Effluent requirements per §1-904 of the Rules. Steve said that one system had been installed in a slaughterhouse situation and used to treat the wastewater prior to flow through another advanced treatment system. The system did help bring the overall system into compliance.

### **Other Topics:**

Bruce asked that TAC members respond to the poll that was circulated to rank the order in which future topics would be discussed. The Regional Office staff will also be polled.

Bruce met with the House Fish, Wildlife, and Natural Resources committee to discuss S.226. The bill is about housing affordability and some other topics. This bill would allow a municipality to request authority to approve water and sewer connections by just filing a letter to register with the DEC. The bill could allow for State approvals and municipal approvals in the same municipality which would be confusing to designers and applicants. Bruce told the committee that less than 10% of all projects would likely qualify. He also noted that only two municipalities have ever requested delegation authority and therefore the number that would ask for this authority might be small. Bruce explained that the amount of confusion for people trying to determine if they need a state permit might cause more problems than now exist. The bill does also create a requirement that building contractors register with the Office of Professional Regulation if they do projects costing more than \$10,000. A process for certification of building contractors in specialties will also be established. The bill budgets \$200,000 to hire staff to process contractor registrations and certifications.

Bruce reported that Mary O'Leary is completing a report on Indirect Discharge System's (IDS) performance. She will continue the work she began last fall about the cost, availability, and certification of mound sand. There is some money left in the grant if there are suggestions for another study that could be completed by Fall.

Bruce is also looking for ways to improve the decision making related to issuing variances when full compliance with the Rules is not possible. Some applications need many variances and the point where a holding tank should be required rather than constructing a system is not clear. This may be an opportunity for Mary O'Leary to research variance programs in other states and evaluate the variance requirements in Vermont.

Meeting in person versus online was discussed. Several people supported having in person meetings while others expressed concerns about the ongoing COVID pandemic. Steve said that his town planning board had been using a hybrid approach successfully. Bruce will look into arranging for a meeting using the hybrid approach.