

Approved Minutes of the Technical Advisory Committee Meeting  
November 12, 2013

<b>Attendees:</b>	Roger Thompson	Chris Russo
	Mary Clark	Ernie Christianson
	Steve Revell	Peter Boemig
	Craig Heindel	Scott Stewart
	Rodney Pingree	Claude Chevalier

**Scheduled meetings:**

December 10, 2013 1-4 PM Winooski Con. Rm., National Life – Montpelier

**Agenda:**

Accepted

**Minutes:**

The minutes of the October 15, 2013 meeting were accepted as drafted.

**Innovative/Alternative Systems Update:**

Mary said that one issue under discussion is the installation certifications that are required as a permit condition. The Wastewater System and Potable Water Supply Rules (WWR) require that the certification include a specific statement but designers sometimes add qualifications indicating that they are not certifying all that should be certified. In some cases these are partial certifications that cover work up to a certain point and indicate that there is still more work to be done. These do not satisfy the permit requirements until followed by an additional certification covering the remaining work. There are also certifications that are intended to meet the permit requirements but include statements saying that certain items were not inspected or that the inspector was not onsite throughout the installation and therefore some non-complying action could have occurred without the inspector being aware of the problem. One question was whether the specific statement in the rules should be modified or guidance used to allow for qualifying statements. Peter said that the existing installation certification language was developed with a lot of work by the various groups of designers, attorneys, and insurance companies and any changes should be considered and approved by all of these groups to ensure that any changes do not create new problems. Peter also noted that the existing certification language includes a statement that the certification is based on reasonable professional judgment. This statement allows a designer to certify the installation without being on the site full time, provided the designer uses reasonable judgment in determining when to be onsite during the construction phase. Roger suggested talking

with Anne Whiteley about how the certification process is to be implemented. He recalls that Anne did not think any qualification statements that would limit the certification statement should be accepted.

Mary also asked about using I/A systems for repair of failed systems or to extend the life of existing systems. Questions include:

- A. use of systems that are not approved for general use
- B. should any approval of the technical aspects of the system be required
- C. is and/or should a permit be required for the installation
- D. should there be any standards that must be met, such as distance to wells or to seasonal high water tables, when using an I/A system for a repair or to extend the life of the system

The TAC was open to the use of systems not approved for general use provided there is some evidence that the systems would likely improve the situation. Several TAC members, including Steve, Craig, Rodney, Roger, Mary, and Ernie, think that a permit should be required. There was also support for establishing some minimum standards for the existing system that must be met prior to adding an I/A system. This was based on concerns that I/A systems generally greatly reduce the biomat layer at the interface between the system and the surrounding soil which might allow for rapid movement of pathogens down into the water table and then towards potable water systems.

The TAC also discussed I/A systems that inject chemicals and/or bacteria into the disposal systems. Some systems combine additives and other treatment processes such as aeration. Rodney recommended that these system be reviewed under the standards for I/A systems in the WWR. Peter suggested that there be a category for systems which may not have an established record of treatment success but can none-the-less be determined to do no harm.

Mary asked about the monitoring requirements for the three categories of I/A systems; general use, pilot use, and experimental use. Mary provided a handout with suggestions and a timeline for reduction in monitoring if the early results are positive. Roger said that general use permit usually do not require testing of effluent quality, only when the effluent is cloudy or there are pungent odors, and that with so few pilot or experimental systems it might be better to make a case specific decision based on review of the particular system. Craig said that any permit requirements need to be clear to the manufacturer and owners of the systems if the system will have ongoing and maybe expensive monitoring requirements.

### **Compliance Update:**

Chris said that a new Regional Office tracking system is being written by in-house staff. This will allow for more information to flow electronically from online applications into the tracking system which will reduce errors and save time. The application forms are also being reviewed to determine if unneeded information is being collected.

Chris said that all of the tracking system will be centralized rather than using the current model of a separate data base system in each regional office plus one in the central office. These improvements will facilitate information analysis because all of the information will be in one data base. Chris is working to ensure that the five regional offices use a single approach for data entry. One goal of this process is to be able to track installation and operational inspection requirements. The system will be able to track and print out reminder notifications. Craig asked about the ability of the public to search the data base. A lot of information is currently online but it can only be searched in limited ways. This should be improved with the new system so that keywords can be used in addition to some specific groups in the current system. Peter said that two important categories are street address and longitude/latitude. Craig asked that Colchester and Charlotte be required to provide data to the tracking system as well. Ernie said that the delegations to Colchester and Charlotte require them to provide this data.

### **Water Supply Rules:**

Ernie had circulated updated drafts of the Water Supply Rules prior to the meeting and had questions about some particular sections of the rules.

The existing rules require that the impact of a new well on an existing well be determined when within a specified distance. This is usually done by pumping from one well while monitoring the water level in an adjacent well. Ernie said that the distances seemed quite large and wondered why these distances were chosen. Scott said that they were determined based on a large amount of pump testing data that has been accumulated for public wells. Craig and Steve said that their work supported using the 200' distance that is in the current rules for wells that must supply 1.9 GPM or less.

The TAC also discussed the proposal to allow for a reduction in isolation distances when it is determined that the source aquifer is protected by a soil layer with lower permeability (confining layer). One method of making this determination is to compare the elevation of the water level in the well under pumping conditions to the elevation of the bottom of the confining layer. If the water level is above the bottom of the confining layer, the well is considered to be under artesian pressure which reduces the chance that contamination can move down into the source aquifer. The TAC supports the concept of reducing the isolation distance when the water level in the well under pumping conditions is at least 8' above the bottom of the confining layer.

Ernie will be updating the draft of the Water Supply Rules and will email this to the TAC.

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**Executive Committee:** Steve Revell, Ernest Christianson, Roger Thompson

Alternates – Chris Thompson, Spencer Harris, Claude Chevalier, Craig Heindel

**Subcommittees:**

**Hydrogeology**

Craig Heindel, Bill Zabiloski, Mark Bannon, Scott Stewart, Steve Revell, Mary Clark, Roger Thompson, Peter Boemig, Ernie Christianson, Spencer Harris

**UIC Rules**

Craig Heindel, Steve Revell, Roger Thompson, Ernie Christianson, Scott Stewart, Rodney Pingree, Kim Greenwood, Cindy Parks, John Beauchamp, Gail Center

**Wastewater Strength**

Mary Clark, Cindy Parks, Peter Boemig, Bill Zabiloski, Roger Thompson, John Akielaszek,

**Bottomless Sand Filters**

Peter Boemig, Mark Bannon, Cindy Parks, Mary Clark, Denise Johnson-Terk, Craig Heindel, Ernie Christianson

**Seasonal High Water Table Monitoring**

Craig Heindel, Steve Revell, Roger Thompson, Ernie Christianson, Bill Zabiloski, Dan Wilcox, Mary Clark