

Approved Minutes of the Technical Advisory Committee Meeting
December 11, 2012

Attendees: Roger Thompson Peter Boemig
 Gail Center Bill Zabiloski
 Cindy Parks Rodney Pingree
 Ernest Christianson Claude Chevalier
 Craig Heindel

Scheduled meetings:

January 8, 2013 1-4 PM Liquor Control Conference Room-Montpelier

Agenda:

The annual report was added as a topic.

Minutes:

Gail asked about the sentence at the end of the first paragraph on page 2 that states that the design of some systems was to be left to Professional Engineers. Roger said this was a decision from a couple of years ago at the time the statutory exemption for some water treatment systems was added, not a recent TAC recommendation.

Nitrate//Nitrite:

Gail reported that she had reviewed water testing results based on testing for total nitrogen and found that out of 553 samples tested in 2011 only 1 exceeded the standard. So far in 2012 only two samples have exceeded the standard. One was a brand new system and Gail contacted Jeff Comstock at the Vermont Department of Agriculture and they are doing a nitrate monitoring program to try and determine the source of the contamination. Jeff said that the Department of Agriculture has an ongoing groundwater monitoring program and, with a 5 year rolling average of 730 samples, they have identified 53 locations with nitrate levels exceeding the standard of 10 mg/l. Jon Kim of the Vermont Geological Survey Office is working with Jeff to map bedrock fractures and other geologic features as part of understanding how the contaminated groundwater is moving. There is a question as to whether or not the water supply for a milk-house must be potable water.

Gail asked if water treatment systems for nitrate/nitrite will be included in the list of exempt water treatment systems that will be proposed as a rule revision. Ernie said that he is inclined to exempt these systems. Craig suggested that the TAC should be on record on the issue and there was unanimous support for an exemption.

Innovative/Alternative Systems:

The review process to revise the approval for the Enviro-Septic[®] Pipe is continuing. Ernie said that a review letter was sent to Presby Environmental stating that the Agency disagrees with the requests to allow a single length of distribution piping to exceed 100 feet without pressure distribution, approval for installation of inground systems with sloping bottoms, removal of the A soil horizon for mound systems, and the waiver of the requirement for an effluent filter. The design manual already approves a piping arrangement that allows airflow entering a vent at the leachfield to bypass the septic tank on its way to the roof vent. In addition, an oversize effluent filter could be specified as part of an approval for the Enviro-Septic[®] Pipe.

Cindy reported that Presby Environmental has filed a FOIA request for all of the information that the Agency has related to the request for approval of the GEOflow[®] pipe in Vermont. The request for information also stated that the GEOflow[®] pipe should not be approved as a treatment system in Vermont. Cindy has responded noting that the application does not request approval for use as a treatment system and will not be approved as a treatment system.

Presby Environmental may apply for approval of its Simple-Septic[®] product. Roger said that Enviro-Septic[®] was approved on the basis of specific testing which supported a reduction in sizing and for waiving the requirement for pressure distribution when used in mound systems. Depending on what type of approval is being requesting, similar testing might be required.

Review of 2012 and Plans for 2013:

Ernie reported that the Regional Office Staff completed their comments on proposed revisions of chapters 1-3 of the Wastewater System and Potable Water Supply Rules (Rules) that they would like incorporated into the Rules, and are working on chapters 4-7.

The subcommittee working on the separation of wells from leachfields has met a few times. They developed a proposal for a prescriptive site evaluation that might be used to support a reduction in horizontal isolation distance. The sticking point has been how many test pits are required and where they need to be located in order to verify the nature of the soil between the well and the leachfield. Ernie wants the subcommittee to meet and work out these details. Ernie would like to see this included as an appendix in the next set of rules.

Ernie asked about the subcommittee working on “overshadowing” issues. This issue seems to be related to the well isolation distance questions and was partially resolved by changes made to the statutory notification requirements during the past legislative session. It was decided that a separate subcommittee is no longer needed.

Cindy reported that she, Christine Thompson, Anne Whiteley, and Ernie met with the Agency Secretary and the Division Commissioner to discuss the UIC Rule update. Cindy

said the Rules could be reviewed by the TAC in January. Cindy asked that the TAC meeting be moved forward to January 8th which was agreed to. Cindy will circulate an e-mail a copy of the draft rules so they can be reviewed prior to the meeting.

Ernie and Craig suggested that the title of the subcommittee dealing with UIC and geothermal well issues just be shortened to UIC because the only concerns about geothermal wells are those related to the UIC issues.

The SHWT watertable monitoring subcommittee recently met. Roger will write up the minutes. Ernie wants to have one more subcommittee meeting to work on recommendations.

The Wastewater Strength Subcommittee discussed a draft informational document with TAC at a previous meeting. There is a lot of information available and Ernie said that some of it could be included in the body of the Rules or as an appendix. Cindy has circulated some information she obtained at a URI training course that Mary will review for possible inclusion in the draft informational document. Cindy will arrange for a follow-up subcommittee meeting to discuss the possible updates.

The results of the recent URI training program for bottomless sand filters at VTC were discussed. After the follow-on meeting with the Regional Office Staff and TAC members in Waterbury it was apparent that bottomless sand filters are not likely to be as widely used in Vermont as they are in Rhode Island though they will find a place on some very difficult and small lots. The subcommittee working on this topic should meet and develop design guidelines. Craig, Bill, and Ernie will join this subcommittee.

Ernie asked about soil identification in lieu of percolation testing. Roger said that he has done some scouting of other states and found that several other states have adopted some form of soil identification in lieu of percolation testing. Roger said that after Christmas he would continue researching the other states and at some point contact some states to ask how the change is working for them and how they implemented the change along with any recommendations they might have for Vermont. This will be discussed by the Hydrogeologic Subcommittee. Steve Revell, Craig, Roger, Mary Clark, Peter and either Spencer Harris or Justin Willis will be subcommittee members.

The Hydrogeologic Subcommittee should also meet to discuss:

- A. the questions related to curtain drain effectiveness, specifically to determine if there should be an expansion of the existing presumptive approach that is limited to sites with certain soil, slope, and flow capacity conditions;
- B. the existing desktop groundwater mounding evaluation that is included as appendix 7-A;

- C. whether the currently required minimum of 12” of sand under the leachfield in a mound could be reduced when a lesser amount would still provide 36” of separation to the SHWT and 48” to bedrock; and
- D. whether the currently allowed maximum toe slopes of mounds should be revised when installed on steeply sloping sites.

Craig suggested that a separate subcommittee be formed to discuss the “mound in a box” concept. This would allow for a system that follows current design standards for mounds, but instead of toe slopes of sand would have vertical walls of wood or other material to support the sand. It was agreed to form a subcommittee including Roger, Steve Revell, Ernie, and at least one of the following TAC members: Peter, Mark Bannon, Spencer Harris, Justin Willis.

There is a target date of January 3, 2013 to have a draft of the Water Supply Rule revisions ready for the full internal Agency review. This will deal with the current Chapters 11 and 12 and will eventually result in the material in those sections being incorporated into the Wastewater System and Potable Water Supply Rules (Rules). The draft will be circulated to the TAC as well.

Ernie said that Christine Thompson, Director of the Groundwater and Potable Water Supply Division, has decided that all naturally overflowing wells must be capped. There will be a process to apply for an exemption in limited situations. Craig asked if she has the full background on how this would affect property owners. Ernie said that this is being driven to some extent by the Legislative decision that groundwater is subject to the public trust doctrine and that there will be a lot of discussion and revisions to policy as the Agency determines how the new law must be implemented.

Roger will draft the annual TAC report summarizing the meetings of 2012 and circulate for comments. Ernie thinks this may still be a required report available upon request but not officially distributed though Roger thinks that the Legislature eliminated the requirement. Anne Whiteley will be consulted.

Gail reported that the Vermont Department of Health is on track to implement the Act 163. Act 163 requires that as part of a property transfer the seller must provide the buyer with an information packet about testing of drinking water supplies. In response to a question, Gail said that the data base contemplated in Act 163 has not been created even though Certified Water Testing Laboratories are required to submit the information to the Vermont Department of Health and the Department of Environmental Conservation. Gail said that it would be a major effort to enter all of the expected information.

Gail also noted that the Vermont Department of Health is aware of a cluster of wells in Charlotte with high levels of naturally occurring fluoride and will be doing a press release. Rodney explained that fluoride concentrations may be caused by hydrothermal replacement and Craig noted that there may be some association with carbonates. Rodney

asked if they will be doing a press release on some of the older issues such as radionuclides in Milton and arsenic in southwestern Vermont.

Ernie said that Mary Clark has arranged for VTC students to prepare CAD drawings of the diagrams used in the Rules which will be a significant improvement over the current diagrams.

Items prioritized for discussion with high, low, and medium ranking

1. Soil identification vs. perc test **medium**
2. Curtain drain with presumption of effectiveness **high**
3. Revisions to desktop hydro chart **medium**
4. Minimum amount of sand under a mound **high**
5. Water Supply Rule update **high**
6. Seasonal High Water Table determination for performance based systems **high**
7. Wastewater Strength

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

Overshadowing of Isolation Distance Issues –

Anne Whiteley, Ernie Christianson, Roger Thompson, John Beauchamp,
Gail Center, Chris Thompson

UIC Rules and Geothermal Wells -

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

SHWT Monitoring –

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

UIC Rules and Disposal of Wastewater from Water Treatment Systems –

John Beauchamp, Gary Adams, Roger Thompson, Ernie Christianson,
Gail Center, Cindy Parks

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