

Approved Minutes of the Technical Advisory Committee
November 19, 2002 Meeting

Members Present:

Roger Thompson
Frank O'Brien
Dave Cotton
Alan Huizenga
Bernie Chenette

Craig Heindel
Barb Willis
Phil Dechert
Kim Crosby

Steve Revell
Allison Lowry
John Forcier
Spencer Harris

Scheduled Meetings:

Monday, December 2, 2002, from 1-4 PM @ Appalachian Gap Room

Tuesday, December 17, 2000, from 1-4 PM @ Appalachian Gap Room

Tuesday, January 7, 2003, from 1-4 PM @ 100 Stanley Hall

Tuesday, January 21, 2003, from 1-4 PM @ 100 Stanley Hall

Tuesday, February 4, 2003, from 1-4 PM @ 100 Stanley Hall

Tuesday, February 18, 2003, from 1-4 PM @ 100 Stanley Hall

Committee Discussion

Future Meetings:

It was decided to meet every other week on Tuesdays from 1-4 PM starting January 7, 2003. DEC will look ahead at the calendar for conflicts and then book a room.

Review of Minutes:

The draft minutes for the November 5, 2002 meeting were discussed. It was noted that the comments portion of section IV entitled "Other items for consideration" should include a statement that some members did not agree that use of a treatment system, even one with a general use approval from the Department, should automatically be designed by a site technician. It was also requested that the minutes indicate which members were present. There was a request that when meeting dates are given that the meeting time be included for ease of use.

There was also a comment on the draft minutes for the October 22, 2002 meeting that in one place there is a note of the formation of two subcommittees and a following note that

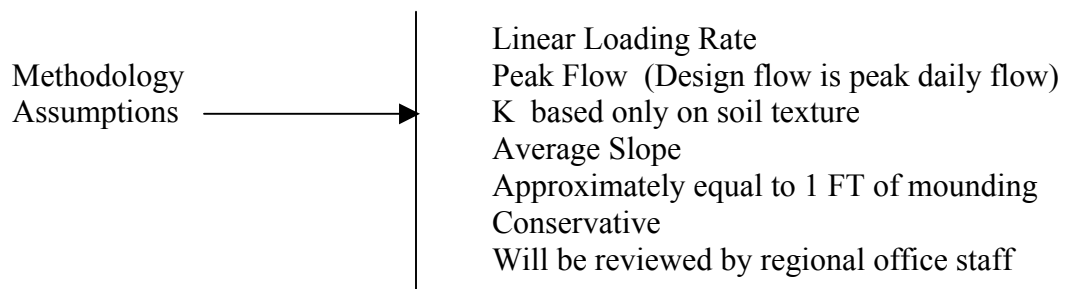
an additional subcommittee was formed. The minutes should be reworded to make it clear that three subcommittees were formed. It was requested that the subcommittee tasks and members be included with the minutes each time.

The minutes were accepted with the above noted additions and corrections.

Presentation of the Hydrogeologic Subcommittee:

Dave gave a presentation of the results of the subcommittee's work using the outline below:

Do we accept the:



Recommendations:

This is a prescriptive approach for use by most designers and does not require specialized hydrogeologic skills.

There is a need to incorporate training for everyone in how to use the approach.

There is a need to increase soil morphology training for everyone in order to maximize the use of soil information

Dave reviewed this outline and said that the subcommittee did agree that the methodology is valid and that the assumptions are agreed on. The subcommittee developed a chart that converts soil textures into conservative K values and then into acceptable linear loading rates based on 1' of groundwater mounding. The site conditions relative to the amount of soil above the SHWT have to be factored in to use the chart for designing a system. For instance, if the design basis is that SHWT is 12" below the surface of the naturally occurring soil, the mounding must be reduced to 6" by using a lower linear loading rate in order to meet the 6" design requirement.

The chart mentioned above is different than the chart that was partially developed by the previous TAC during the early part of this year. The subcommittee proposes that there also be a **second chart** that would, in addition to the soil texture, include factors related to soil structure. Because this form of soil analysis is not part of the existing program for prescriptive system design, the use of the technique requires an advanced understanding of soil morphology. A soil scientist or hydrogeologist usually does this analysis. The use of site specific conductivity testing is also allowed.

John said that he wanted to support as many options as possible. Craig agreed and noted that there would be two desktop approaches and one based on site specific testing.

Discussion of the 6" rule

Roger asked for discussion of the requirement that a performance-based system be based on a design that would keep the effluent at least 6" below the surface of the naturally occurring soil. Dave reviewed a portion of the 1997 summary report that noted both that 6" was the consensus number developed by the members of that technical committee and that at that time it was observed that even with a 6" layer of soil above the free water table, the soil would be saturated to the surface and feel soft underfoot in the springtime. Roger asked if after 5 years of thinking about the subject was there any way to reduce the 6" standard and still make a claim that the system would not surface. Craig and Dave said no and this appeared to be the consensus from the group. Roger said that this seemed to lead to a position that solving the "Addison County problem" would require a change in the policy against surfacing sewage. Committee members agreed that the topic must be considered and said that discussion should include the question of when the discharge is no longer considered wastewater.

Several members talked about approaches that would include advanced treatment prior to discharge to the leachfield followed by some polishing in fill material or in naturally occurring soil or a combination of both in systems that where there would be at least periodic surfacing of effluent at the toe of the system. Several members, Dave in particular, suggested that disinfection could be part of the treatment process. John suggested that a two year time of travel zone, owned or controlled with an easement might be part of the solution. Dave said that the two year time of travel was based on 5 to 7 logs of viral removal, heading towards the thought that disinfection could serve the same purpose. This led to a discussion about the passive nature of treatment in the soil versus the active treatment of a disinfection system.

It was agreed that this is a policy decision that the Department will have to consider and that this topic will be reviewed at future meetings.

Site Technician Rules

Alan Huizenga reviewed the subcommittee results.

- A. There is no need for additional classes of designers, at least in the wastewater area.

- B. There is no need for minimum qualifications. Continue to rely on the testing program.
- C. There should be a continuing education requirement for all designers and for review personnel including state review personnel.
- D. Grandfathered site techs should not be required to complete the site tech examination. Time and the continuing education requirements will weed out those who really are not able to do the work.
- E. Consensus was not reached on allowing site techs to design wastewater systems for places of public assembly. Gary is concerned about the use of public funds and the standard of care that users would expect. John said that there was also concern that the wastewater might be of higher strength because there is less dilution when the building is not used for residential purposes (no showers or clothes washers).
- F. Site techs would not design any water system classed as a public system or that required a water treatment system to meet drinking water standards. Other water systems with a total design flow of up to 1350 could be designed by site techs, including those with a combination of commercial and residential use.
- G. There was not total consensus on the use of advanced treatment systems with a general use approval by site techs. Gary is concerned that if the manufacturer is not available at some point in the future, some engineering judgement will be required to keep the system functioning.

There was general agreement by the committee with each of the positions on which the subcommittee developed consensus. The committee asked that the subcommittee write up the areas of disagreement on the other topics with the supporting arguments for each side. The committee will discuss and make a recommendation to the Department on each topic.

Other topics

Dave asked that the “framework” document agreed to last year be circulated to committee members.

There was a request to put minutes of the meetings on the web and it was noted that the process was already under way and that the minutes should be available soon.

John reviewed the status of training sessions with Sid Pilgrim. Mr. Pilgrim will be in Vermont in the spring of 2003. The sessions will be sponsored by ACEC. ACEC, VTC, and Stone Environmental are applying for a grant to support this work.

Subcommittees

Hydrogeology - Allison Lowry, Craig Heindel, Dave Cotton and Steve Revell.

Training subcommittee - John Forcier, Roger Thompson, Allison Lowry, Dave Cotton, Barbara Willis and Marilyn Davis.

Licensed designers - Spencer Harris, Gary Fern, Alan Huizenga for Lance Phelps, and Gerry Kittle.

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