

**INNOVATIVE/ALTERNATIVE SEWAGE DISPOSAL TECHNOLOGIES
TECHNICAL REVIEW COMMITTEE (TRC)**

May 16, 2006 Meeting Minutes

APPROVED

Attendees:

TRC members present: Russ Chateaufeuf, Ken Anderson, Dave Burnham, Joe Frisella, George Loomis and Tim Stasiunas

TRC members absent: Noel Berg, Susan Licardi and Dennis Vinhateiro

Others present: Deb Knauss RIDEM, Laszlo and Hollister Sigmund of Sigmund Environmental Services (SESI)

Russ called the meeting to order about 1:20 PM

Materials distributed:

- Draft Agenda for today's meeting - 5/16/06
- Draft Minutes of 1/27/06
- Application Summary for SESI's application for Denite approval for the Singulair
- Article provided by Mark Noga from Onsite Installer Magazine about remediation of a sand filter by White Knight
- White Knight Draft Certification
- FAST CI-II Denite Certification
- FAST CI-I TSS/BOD Certification

Minutes

Page 2, paragraph 1, change 400 feet to 500 feet

Page 3, beneath "ADS Pipe", at the first bullet, include parenthetically, (corrugated exterior, smooth interior)

Page 3, beneath "Denite Performance Standard", second paragraph, change 39 mg/L to 38 gm/L.

There was some discussion of the issue of requiring the use of a PSND, where possible, in the watersheds of drinking water supplies. With technologies approved for use with either PSND or BSF, the PSND is the preferred means of effluent disbursement in these areas, however if the PSND would require a variance, then the BSF may be used. Applications for commercial uses and large systems would still be required to include detailed technical analysis as currently specified in the BSF Guidance Document. George noted that since BSFs provide additional pathogen reduction and pressure dosing evenly distributes the effluent, they are a better option than loading up the head of conventional field laterals with low BOD effluent resulting in no development of biomat.

Motion: Tim made a motion to accept the minutes with the necessary corrections.

Second: Ken seconded the motion.

Vote: All present who were present at the January 27, 2006 meeting voted in favor (Ken Anderson, Dave Burnham, Russ Chateaufeuf, Joe Frisella and Tim Stasiunas)

Sigmund Singulair Application

Hollister and Laszlo were asked to clarify the differences between the configuration of the MA installations and that for which RI approval is being sought. The installations in MA have the recirculation pump installed within the biokinetic filter in a recirculation well following the third compartment of the tank. Hollister explained that O & M and effluent testing are easier in this configuration, therefore this is the configuration for which SESI would like to obtain approval from RI, although this is not the configuration specified in the narrative of the technology application.

One control panel controls the aerator; the recirculation well houses a second timer. Hollister emphasized the necessity that an approval allow adjusting these settings as necessary, as they found that adjustment may be necessary to optimize System performance. Quarterly assessment is necessary to determine if the recirculation ratio requires adjustment.

Denitrification consistency under stress

Concern was expressed for the System's ability to denitrify to the RI requirement when subjected to short intervals of high flow and how we are to be assured that the systems installed are denitrifying. Laszlo responded that as long as a system is under service contract, it will be known if air to the system has been turned off. Hollister added that the systems are able to be retrofitted with telemetry, which monitors aerator function. If the System is turned off, the telemetry system will report it.

NSF report / MA approval

Hollister reported that the NSF Report on the Norweco system for nitrogen reduction was generated with no recirculation and additional evaluation of the system was done at the MA Test center. He also stated that MA sought the Provisional Approval Submission from SESI.

Russ sought clarification of the statement in an e-mail from Hollister to Deb and himself, that MA requires that 75% of the data meet the treatment requirement. Is this 75 % of the systems, or 75% of the observations for all the systems or something else? Hollister did not know, although Laszlo thought that it seemed like it would be an average of data for all systems considered, 75% of which must satisfy the treatment requirement.

Service of the systems installed in MA was sub-contracted to SYMPCO (Bob Silva, President); the relationship between this company and SESI was stated by Hollister to be more of a cooperative than one of employer/employee. The truck used by SYMPCO for service calls to the systems is self contained and self sufficient, containing water and able to provide power.

The sampling of the MA systems was performed by Joe Martins, initially hired by SESI to do service, as the MA operator for each system. He would ask homeowners what cleaning products are used and would note these in his filed notes. Joe Martins performed monitoring for three years, and then Peter Poe undertook this. Grab samples were taken from the recirculation well. Samples were sent to Groundwater Analytical. Monitoring was conducted monthly for 18 months.

MA minimum of four inspections per year.

HS: Norweco reviews SESI's performance annually.

Ken Anderson inquired if SESI knows if a system will be used seasonally and how they manage such systems. Deb, taking notes missed the reply to the question.

System Discharge

George responded to Laszlo's question regarding what other companies do to make their product more robust, by stating that they discharge to PSNDs and BSFs. With consideration that final discharge from the System is by gravity, the pump chamber required before the BSF would have to be large enough (1/2 daily flow or 450 gal min.) to accommodate demand flow from the system. Use of the System in a critical resource area would require pressure dosing.

Laszlo was under the impression there were clearly defined requirements for technology approval for denitrification in RI, of 19 mg/l TN in the system effluent and that he sees his system as satisfying this requirement. It was explained to him that for a system to be categorized as a Category 2 system, allowing timed-dosing to a BSF, the discharge pump chamber must accommodate half the daily flow and the recirculation pump has to be incorporated. Tim Staiunas added that use in a critical resource area will require pressure dosing.

Tanks / risers

Discussion of tanks: SESI using two precasters, who manufacture two-piece tanks. Other tank notes: Acme is producing monolithic tanks. NH is mandating monolithic tanks.

Dave Burnham inquired if they are still using concrete risers; Hollister responded that they are and that there is a hole cast in for electrical wires. It was noted that they are now recirculating into the riser and the benefit of a waterproof splice box was discussed. Hollister suggested that they could require a bitumastic seal to ensure watertightness.

Venting was discussed and explained to be driven by the recirculation of effluent to the first compartment.

System Settings (Aeration and Recirc)

There was some discussion of the adjustment of aeration and the recirculation ratio. Russ asked what Siegmund is seeking from RI regarding these settings. The approval in effect for the Norweco's product is for continuous aeration. Hollister stated that he would ask Norweco what they want as requested minimum and maximum settings for these two system functions.

Large Systems

There was discussion of the design flows for which Siegmund is seeking approval, with consideration that the data submitted reporting on performance of only residential systems. Siegmund is seeking approval for commercial use at office buildings and at restaurants with grease removal systems.

Performance Data

Hollister reported that additional laboratory reports were received by SESI today and although he did not have them with him, he would provide that information later, if desired by the TRC.

General TRC Comments

- Need to have waterproof splice boxes
- Grouted through riser
- Remote intake vent
- Consistent attention to O & M
- Application: incorporate all new information, make corrections and reorganize

Motion: Joe made a motion to adjourn the meeting.

Second: Ken seconded the motion.

Vote: All present voted in favor.

The meeting adjourned about 4:45 PM.

Next Meeting

Next meeting is scheduled for July 27, 2006 at **8:30** at the South Kingstown Town Hall at 180 High Street in Wakefield.