

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

November 18, 2005 Meeting Minutes

APPROVED

Attendees:

TRC Members

Present: Dave Burnham, Noel Berg, Russ Chateaufneuf, Joe Frisella, Susan Licardi, George Loomis, and Dennis Vinhateiro

Absent: Ken Anderson and Tim Stasiunas,

Others present: Mark Noga of KTS, Frank Rice of All-Pro Rooter, a Knight Systems authorized distributor and Deb Knauss RIDEM

Russ called the meeting to order about 8:30

Materials distributed:

- Draft Agenda for today's meeting - 11/18/05
- Draft Minutes of 10/21/05
- TRC Summary – Review of White Knight Class II System Component Application – for repairs - October 2005
- Fornaro reply and Russ response to Fornaro

Minutes

With consideration of the presence of Knight Treatment System's representatives, review of the minutes was deferred until after the discussion of the White Knight technology.

White Knight

The effect of cold on the inoculum was discussed: influence of cold temperatures may be observed by the service provider as an increase in the amount of and color of material on the effluent filter. Additionally a system which is not functioning properly for any reason, will emit a hydrogen sulfide odor from the access manhole; when the White Knight (WK) is functioning properly, hydrogen sulfide is eliminated. The WK will completely eliminate the biomat.

The **pump sizing and use** was clarified: residential systems with one media tower will need a 40-watt pump, commercial systems with two media towers will need an 80-watt pump. There was some discussion about septic tank size requirements for use with the WK and it was noted that if an approval is issued for the technology, that there must be a provision that the technology is not to be used with substandard septic tanks, as Knight Treatment Systems (KTS) provides for use of tanks smaller than those required by RI regulations.

Mr. Noga described the **system qualification process** as incorporating homeowner interview, during which the homeowner is asked what they know about the system, what detergents are used, laundry habits, whether a water softening system is in use and if water meter data are available. During this discussion Mr. Noga emphasized that the septic tank must be watertight; watertightness he reported is determined by pumping the tank and making a visual observation.

Detergents and other cleaning products may interfere with proper functioning of septic systems, Mr. Noga reported that they could provide recommendations on cleaning products which are safe for the system and those which are not.

There was some **discussion of whether the proper classification for this application** is as a component or if it should be changed to a system. Considering that the site qualification process and if the site qualifies, system installation and maintenance, are required to be performed by a factory trained and authorized dealer, such specialized training seems beyond the scope of the general knowledge which would be appropriate to service a component such as an effluent filter. Components are considered to be tanks or filters and to be passive. It was explained to Mr. Noga that the only difference between the two classifications is that the renewal fee would be \$500 for a technology rather than \$150 for a component. Mr. Noga stated that it was acceptable to him for the WK to be considered a technology.

WK Business Practice/Dealer Relationship

Mr. Noga indicated that KTS registers each system with an identification number. KTS sends to the dealer notification of the dates of upcoming inspections with the inoculation packs. The dealer provides the system guarantee.

The relationship between KTS and the dealers as well as cost to dealers was summarized by Mr. Noga who offered to send via e-mail to Deb Knauss, a copy of the dealer criteria document, the dealer's agreement and the site qualification template. If an interested party meets Knight Treatment System's criteria that individual must purchase a minimum inventory which consists of a couple of units, the

cost to the dealer is \$80 per residential unit which includes the inoculum. Mr. Noga stated that in one year ten dealers could be set up in RI. Dealers do not have access to the electronic record keeping system and cannot be given "read" rights to it.

Whether an electrical license is required is a function of the location in which the system is being installed.

Every WK system sold must have a **service contract** and the maintenance provider, a factory trained and authorized distributor is on site every 6 months. The cost for re-inoculation is \$150, it takes about 15 minutes to complete this task and the cost was stated to include mobilization and demobilization.

In the state of Maine where the WK was being used for repairs and data continued to be collected and submitted to the state, the state granted the WK a 50% leachfield reduction for use with new construction.

Effluent testing is conducted on commercial units.

The alarm is audio/visual.

Mr. Noga discussed the use of the WK on a new system, for additional treatment, a practice he refers to as a green sale and reiterated that they have not sought approval for such use in RI. It was noted that if the WK, used as such, would increase the TSS and BOD temporarily.

There was some discussion of the issue of its **use with a system which is not failing** being prohibited if the approval is for use in repair situations only. On repair applications if there is no option other than advanced treatment sometimes the Department has to allow a reduction in the leachfield area. But with the incorporation of the WK in such instances there may be greater confidence that the repair would be effective in the long term.

There was some discussion about the utility of the WK to **jump-start a seasonally used system**. Since some systems are pumped at the end of the summer season eliminating the system's carbon source, the WK may be beneficial in large seasonal commercial systems.

In reply to an inquiry as to whether there is a written **training procedure**, Mr. Noga replied that the training is conducted one-to-one and that the first installation is done with a WK representative. The TRC expressed concern that the Department must have assurance that training is occurring as it was determined it would be in these discussions about the technology. The Department will require a detailed training manual, notification of training to be conducted and who has been trained. Mr. Noga provided three brochures, system information, owner / operation manual and the training brochure for DEHLI in New York. They require their dealers to attend training at DEHLI.

George noted that if the technology is approved, that there have to be stipulations on where it will be allowed, we want to consistent with the company's triggers – an approval must be written with consideration of the evaluation form which is used for site qualification.

Mr. Noga and Mr. Rice departed.

There was additional discussion regarding the **category of the application** as being more appropriately considered a technology than a component with consideration of the treatment it provides and the care and oversight which are necessary. An application for incorporating Eljen's may be submitted by any Eljen-trained Class I, II or III designer. Since design and installation of repairs incorporating the WK require a WK dealer, the population of authorized users will be more limited than for example Eljens, but there seems to be no other way to deal with the issue.

The **use of the technology would require a repair application** allowing DEM to review the specific conditions of each proposed use. The technology must be designed and installed by trained personnel, the condition of the system into which it is proposed for installation will be considered and they must comply with stipulations to be specified in an approval, if issued. Some special terms which were discussed included:

- The WK may not be installed in cesspools, or block or steel tanks, or in substandard tanks,
- In no case may a tank of less volume than 1,000 gallons.
- Although KTS requires that effluent filters be used with the WK, this requirement should be specified in an approval, if granted.
- There would be no design flow restrictions
- Designer and installer must be DEM licensed and approved by KTS
- Application must be submitted as a repair application
- Two-year maintenance contracts required

- Must report annually, all installations, sites which were rejected and systems which were removed with any necessary explanation.
- When a WK is installed in a new system will not be allowed any leachfield reduction, as it is too easy to remove the system from the tank.
- Reporting requirements would be effluent data for three systems and documentation that the symptoms which had indicated hydraulic failure are no longer observed.

There was some discussion regarding the authority of DEM ISDS licenses, regarding design and installation and whether there should be some restriction on which designer license classes may be approached by KTS. The group decided that no restriction should be placed on which license classes KTS may approach.

Following discussion of the WK application there was no time to review the minutes; this will be done at the next meeting.

Other

Issues for next meeting:

- ADS pipe
 - Use of ADS pipe would require spreader pipes every four feet or it will wiggle into the soil.
 - Inspection ports should be required every twenty feet and at the distal end and that the ports be wrapped with filter fabric.
 - One member reported that it is stronger than PVC
 - It was requested that before a decision is made regarding use of ADS pipe that the material be shown to be equivalent to PVC.

Motion: Dave made a motion to adjourn the meeting.

Second: The motion was seconded by Noel

Vote: All members present voted in favor of the motion (Noel Berg, Russ Chateaufneuf, Joe Frisella, Susan Licardi, George Loomis, and Dennis Vinhateiro)

Next Meeting

Next meeting was scheduled for December 16, 2005 from **8:00** to **Noon** at the South Kingstown Town Hall at 180 High Street in Wakefield.