

The  
ALTERNATIVE/EXPERIMENTAL WASTEWATER TREATMENT TECHNOLOGIES  
TECHNICAL REVIEW COMMITTEE (TRC)

The meeting was held at  
95 Cripe Street, North Kingstown, RI

August 26, 2014

Approved Minutes

*Present:* Brian Moore, Noel Berg, Jim Boyd, George Loomis, Tim Stasiunas and Dennis Vinhateiro

*Absent:* Nikki Andrews, David Dow and Susan Licardi

*Others Present:* Whitney Frost of Sterling Environmental and Deb Knauss (DEM)

Call to Order: 8:47 AM

Materials Distributed:

- Draft Agenda for this meeting
- Draft Minutes of 7/22/14 meeting

**Review of Draft Minutes of July 22, 2014**

On Page two in the second paragraph beneath “Orenco Systems Incorporated, AdvanTex AX-RT”, replace “RI has”, with “the USEPA”: “...working on a mechanical float since ~~RI has~~ the USEPA prohibited...”

**Motion:** Tim made a motion to approve the minutes with the specified correction.

**Second:** Noel seconded the motion

**Discussion:** There was no discussion.

**Vote:** All present, except Dennis who had not attended the July meeting, voted in favor of the motion.

**Threshold for Vendor Review of Design Plans: Six Bedrooms and all Commercial Designs versus 2,000 gpd**

Brian reminded the group that Cal Locker explained that Ecological Tanks, Inc. was seeking approval to accommodate the design flow of a five-bedroom design: design flow for a five bedroom design is 575 gpd and six-bedroom design flow is 690 gpd.

Brian explained that some vendors have a threshold for vendor review, and others don't. He wanted the group to discuss options for vendor review thresholds for all approved treatment technologies, five bedrooms, six bedrooms, or another threshold. Tim suggested that design plans for more than 6 bedrooms (review required at 7 bedrooms) should require vendor review. Noel suggested that the requirement be phrased as a design flow in gallons per day, rather than number of bedrooms to cover both commercial and residential applications: vendor review required for # gpd and all commercial design plans. There was agreement with this suggestion.

Brian proposed 700 gpd and *up to* six bedrooms *without* review and asked if this was acceptable to the group (review required for 7 bedroom designs, designs with a design flow over 700 gpd, and all commercial).

George wanted to know if vendors charge for this review. Tim explained that there is no charge; it is considered a service provided and that turn-around is maybe about a week. The group accepted Brian's suggestion and suggested that Deb post a notice of this vendor review threshold to the website and to the listserv, being sure to explain that vendor review is required for approved alternative systems only, not conventional or non-proprietary treatment systems (recirculating sand filters RSFs and single pass sand filters SPSFs).

**Motion:** Jim made a motion, since there is consensus on the issue of a threshold for vendor review, to request that DEM require manufacturer/vendor review of 7 bedroom designs, systems greater than 700 gpd and all commercial OWTS designs regardless of the IA technology manufacturer and that this vendor review doesn't apply to conventional system designs.

**Second:** George and Noel seconded the motion.

**Discussion:** There was no discussion.

**Vote:** All present voted in favor of the motion.

Brian asked if there was any other new business. George explained that he received an email from Kevin Hoyt (on which Deb was also listed as a recipient), who had attempted unsuccessfully to access design history and O&M information for single pass sand filters (SPSFs) on the DEM website. Deb explained that she sent Kevin a brief acknowledgement stating that SPSFs and recirculating sand filters (RSFs) had gone out of vogue, she was not aware of any breakthroughs in new O&M procedures for these and that she will look into the issue of the inability to locate the information on the DEM website. She confirmed for the TRC her plan to look at the situation and restore access to the sand Filter Guidance Document (SFGD) for design, installation and O&M guidance for SPSFs and RSFs. She will be certain to include in the corrective action (restoring internet access to the SFGD), some explanation of the applicability of the two documents (SFGD and the more recently developed (November 2013) guidance for pressurized drainfields) and provide a link from the SFGD to the new guidance for PSND-specific guidance.

**Monitoring of AdvanTex AX-RTs and Singulair TNTs**

There was brief discussion of the hasty efforts of the two vendors to enroll systems in the monitoring protocol in response to the nudge received from DEM. Brian provided approval totals but explained that some of the installed systems remain unconformed. In some cases systems have not been conformed because the O&M contract hasn't been recorded. All the systems enrolled are supposed to be in use and therefore should be conformed. There needs to be better effort getting service contracts signed, recorded in land evidence records and this recording reported to DEM so that the conformance can be issued.

George stated that as he recalls, the third-party monitoring goes back to a meeting about a year ago with Donna Walsh when he had been asked if URI would be willing to fill the role of third-party monitoring agent. George wasn't entirely comfortable about the idea of doing work that is reviewed by the TRC, since he sits on the TRC. Even if he were to seek an opinion from the Ethics Commission, it was not his preference, but he agreed to accept the role to get the process moving.

He explained that there had been an initial agreement with Orenco to work with URI on RT monitoring in October 2013. So, he hired a student who was going to do this work as a 2014 summer project. As a result of no system enrollment the student had to be released because there was no money and no other work. Since that time, George's staff has been reduced, he has committed to other research, has another proposal under consideration, and doesn't have the time, or the staff to perform the activities associated with the monitoring of these systems. George explained that he doesn't want to let the TRC down and be the point of failure for a vendor beginning now to identify systems for monitoring, but the environment at URI changed a lot in the 10 months since he expected this to begin. But the vendors can engage with another third party entity because there are appropriately credentialed commercial labs in the area that are capable of performing the work.

George was reassured that this is not his responsibility, he's not letting the committee down and there are plenty of viable alternative options for the vendors of technologies that are subject to the monitoring protocol.

There was discussion of whether Orenco should be able to proceed with their proposal to pump seasonal systems that have been in use for six months to one year (which is well beyond the two weeks after start-up specified in the monitoring protocol for start up sampling). Brian and others thought that approving this for one and then comparing it to other seasonal homes with start up sampling performed as specified in the monitoring protocol to see what is different and how, might provide useful, or interesting information.

George was concerned about this since in RI seasonal occupancy is typically between Memorial Day and Labor Day. So, would we get one sample one week after Labor Day for the 2014 season and no second sample? (The monitoring protocol specifies for seasonal systems, that the second sample be taken at least four weeks after the first and while the system is still in use for the season). There was disagreement over the utility of the data that this sampling would provide: whether there would be value to the data, or if it might be misleading. There was agreement that there is a wide range of occupancy regularity and intensity and that waste strength varies so much from home to home. There is also the possibility that a home might be sold between summer seasons and be subject to very different conditions in its second year.

It was suggested that rather than just pumping these systems, the media sheets could be replaced, since at the time the RX was being discontinued and being replaced by the AX as Orenco's N-removal system, this had been stated to be an easily performed activity.

Brian reported that Norweco submitted six sites, five of which are seasonal. They are required to test three seasonal. They may monitor all five, but only the results of three will be considered under the monitoring protocol. He reported that Mr. Frost reported that RI Analytical has performed the fourth round of testing on some of the installations.

Brian reminded the group of the proposal received from Scott Hetrick of Norweco, Inc. to modify the aeration protocol of some of the Singulair 960s installed, to function as TNTs (this modification is not proposed for any of the Singulair DNs, the system for which Sigmund Environmental holds the certification). There was no objection among the TRC to this proposal.

### **AE Program Update**

SeptiTech: Brian reported that SeptiTech had been contacted regarding their testing and reporting (of three systems) under both their certifications (TSS and BOD reduction and nitrogen removal) and they stated that they have been testing all along.

BioCycle: A person interested in restoring the approval status of the BioCycle approval to valid, dropped in and spoke with Deb about this issue. He has been speaking with Jon Fornaro, one of the original parties involved with this technology in RI, but he wasn't aware that the approval had been suspended, nor that any of the related correspondence had been sent to Mr. Fornaro. He offered to get information on the installations and bring it to DEM to help the process. Deb explained that his request is unprecedented and that there is no regulatory or programmatic guidance for handling the request. She will speak with Brian and bring this request to the TRC and then provide some follow-up to him. She explained that there will probably be some administrative back and forth before there is a decision on how to proceed and whether a new application will be required.

### **Large Systems**

Data is coming in with TN concentrations are over 19 mg/L. The vendors are being asked to report what they think the problem is, and what is being done to adjust the systems because the concentrations haven't improved.

Hydro-Kinetic Manuals (Norweco) Hydro-Kinetic has been approved, so when the manuals are approved this “Standard 245” system will be added to the list of approved technologies and Norweco may schedule training. Revised manuals (8/15/14 version) have been received by DEM, and will be reviewed. If necessary, comments will be sent to Norweco.

Bio-Microbics Application for BioBarrier mbr –N-removal NSF 245 TRC vote to approve 5/18/14. Approval drafted and manuals reviewed, with comments on manuals sent to Bio-Microbics. The 8/13/14 version of the manuals has been received by DEM and if necessary, comments will be sent to Bio-Microbics. When the manuals are approved, this “Standard 245” system will be added to the list of approved technologies and Bio-Microbics may schedule training.

Eljen GSF Revised draft manuals & draft Class I approval Since they want to review the Class I approval again before it is issued in final format, it was been sent to Eljen for review, at their request with the DEM comments on the draft manual (August 2014 version).

Nitrex the two start-up installations continue to be monitored.

#### **Next Meeting and Adjournment**

The group selected November 19 and 20<sup>th</sup> as the two best dates for the next TRC meeting. Deb will send a Doodle poll out to the group to verify availability for these dates.

All business was concluded and no additional business was introduced; the meeting adjourned at 10:20.