

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

**The meeting was held at the South Kingstown Town Hall**

**June 6, 2008**

**Draft**

Present: Noel Berg, Joe Frisella, Susan Licardi, Ken Anderson, Dave Burnham, George Loomis, Russ Chateauf, Tim Stasiunas

Absent: Dennis Vinhateiro

Others present: Deb Knauss (DEM)

Call to Order: 12:15 PM

Materials Distributed:

- Draft Agenda for this meeting
- Draft minutes of 4/25/08 meeting
- House Bill H-8326
- Senate Bill S-2626
- Draft Additional Training Requirements / Proficiency Demonstration for CI-I Design of A/E
- Notes on Compost Toilets
- Steve Corr question regarding RSFs

**Minutes of April 25, 2008**

**Motion:** Dave made a motion to accept the minutes

**Second:** Dennis seconded the motion

**Discussion:** There was no discussion.

**Vote:** All who were present at the meeting, voted to accept the motion.

**House Bill-8326**

This bill is entirely the same language as S-2626. DEM objected to both bills, justification included CI-I maximum design flow increase and addition of A-E systems serving commercial uses and restaurants; these uses require the skills of CI-II and III designers. Alternatively DEM proposed additional requirements and training for each individual technology, maximum design flow of 690 gpd and residential uses only. Russ told the senate committee that he would discuss the draft criteria with the TRC and report back. A senate Sub-A, in addition to addressing the CI-I A-E design authority issue, provides for an applicant to retain another licensed designer of applicable class to witness the installation.

Russ summarized some data on the number of repairs that have been permitted in Charlestown for the last two years. 2006: 74 repairs, 70% of which were in the Critical Resource Area; 2007: 60 Repairs and Deb missed the number in the CRA; as of 6/08: 1 repair in the CRA. It had been anticipated that the additional cost of a denite system might have a chilling effect on repairs being made to systems and this might be a factor driving this reduction in permits. Charlestown has a cesspool phase out element of their wastewater management program and about 88 remain, also some inspections have not been performed, therefore the exact number of cesspools requiring replacement in that town could be higher.

Russ reported that the reason for these House and Senate bills is that Sen. Sosnowski had heard that the cost of a denite system is \$15,000 and Rep Walsh had heard \$25,000. These costs were challenged by Joe who asked if CI-Is would do the necessary fieldwork: surveys, site plans and soil work all at no cost to the applicant? There may be no savings realized and he cautioned that repairs are more critical than new construction, as something has already failed.

**CI-I Design Authority for A-E Systems – Criteria for Eligibility**

**Repair without a soil evaluation** caused concern for some. DEM would do a test hole at these sites if the CI-I needed a design water table and no data were available for use in determining watertable for the site. Joe stated that he does a soil evaluation for all his repairs.

**Other ideas regarding circumstances which would require soil evaluation:**

If soils are that important in these areas (Critical Resource Areas), soil evaluation should be required for all repairs, regardless of the class of designer preparing the design.

Consider a trigger, such as a 2' or higher watertable for a soil evaluation.

Setback thresholds for risk categories: wells, onsite and neighbors' wells are the biggest risk factor; if threshold is met, require soil evaluation.

**Eligibility would be limited to two-years**, after which time, the CI-I would have to re-qualify, demonstrating that the A-E repairs, for which he or she obtained authorization for design, had been designed and installed successfully.

**Training:** Russ reported that DEM staff recommended as critical, INSP200 at the New England Onsite Wastewater Training Center (NEOWTC) at URI. Also recommended was INSP 100 (which is a prerequisite for INSP 200, as is OWT 105 I/A Overview). Analyzing high strength wastewater and the I/A Field class were suggested by George. Also, there are soils courses offered through the NEOWTC taught by Mark Stolt.

Russ directed the groups' attention to the sheet titled "*Additional training requirements and demonstration of proficiency for Class I designers to prepare and submit repair apps for specific AE systems*", which incorporates recommendations from DEM staff. **Discussion:**

- George requested "diagnosing failure cause" be changed to **recognizing** causes of failure.
- It was suggested that OWT 125, the BSF class be added.
- Limit to residential
- Add to item "5 e." CI IV and "where there are significant or difficult variances to the Rules."
- Limit CI-I design to plans that require no variances. It was countered that on a lot of 5,000 sf with 75' to the well, there is only one place to put the system on such a tight lot.
- Add to item 8. "in the design of the A-E technology and for technical deficiency" (this is specifically not dishonesty or misconduct, which would be addressed as a disciplinary issue under Rule 12). Item 8 would terminate only authority to design A-E systems; this would not affect the CI-I's ability to submit designs for conventional systems.
- It was suggested that item 5d. is dumbing down the process for the CI-Is, which is not the intent.
- 7 in the list, could be modified to request vendors to provide downloadable typicals and DEM could post these to the website with the technology.
- CI-I would have to attend vendor training as do CI-II & III and the vendor could provide CDs at these training events.
- Approval would be probationary, until some set number of designs and installations were successfully completed.

**General Objection:** Critical Resource Areas are very sensitive environments; is it right to allow the least technically trained group of designers responsibility for design of advanced treatment systems that are being required specifically because of the sensitivity of these areas?

**Conventional Leachfield with A-E in Critical Resource Areas**

Russ reported that **conventional leachfields are now being allowed with A-E in critical resource areas if no variances are required for the leachfield**. If a conventional field will not fit, a BSF will still be required. The A-E approvals will have to be revised to allow for this. George and Ken expressed **objection to this: if denite is being required in these areas, we should be requiring the treatment train to provide for the greatest N-removal and conventional systems do not enhance N-removal, which weakens support for the denite requirement**. George cited the results of Mark Stolt's work that demonstrated the capacity of PSNDs to remove residual nitrogen and phosphorus. He further noted that the spacing on PSNDs could be reduced to two-feet to increase the number of sites on which these could be accommodated. The spacing was decreased to two-feet on some of the demo sites and there have been no problems with these. It was asked if this ½ spacing could be implemented on an interim basis until the guidance document can be officially revised.

**Steve Corr's 3/8' Media RSF Question**

The group agreed to stand by the design specifications for the RSF set forth in the Sand Filter Guidance Document. If he has data that satisfies the criteria in the Rules for an A-E technology application, he may submit an application for approval of this.

**Motion:** Tim made a motion that if approval is desired for this variant of the RSF, an A/E application must be submitted.

**Second:** Ken seconded the motion

**Discussion:** There was no discussion

**Vote:** All present, voted in favor.

### **Cape Cod Nitrogen Issue**

Russ and some DEM staff attended a meeting with Rob Adler (EPA), at which the nitrogen issue and the use of advanced treatment systems as an element of the solution in Cape Cod was discussed. It was stated that use of these systems does not work, however we all recalled that about 68% of these systems were reported to be meeting the effluent limits. It was reported that Chatham is considering?/has authorized? (Deb is unclear) \$200M for a sewer project.

### **Composting Toilets as Nitrogen Removing Systems**

Deb quickly summarized the material she compiled following TCR discussion of whether composting toilets might satisfy the nitrogen removal requirement in the Critical Resource Areas. With no time to consider the issue it will be revisited at a future meeting.

**Motion:** Dave made a motion to adjourn.

**Second:** Ken seconded the motion.

**Vote:** All present voted in favor of adjournment.

The meeting adjourned at 3:15 PM.

The **next meeting** will be scheduled at a later date.