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

The meeting was held at the South Kingstown Town Hall

January 11, 2008 Meeting Minutes

Approved

Present: Ken Anderson, Noel Berg, Russ Chateauneuf, Susan Licardi, Tim Stasiunas and Dennis Vinhateiro

Absent: Dave Burnham, Joe Frisella and George Loomis

Others present: Deb Knauss, RIDEM,

Call to Order: 9:10 AM

Materials distributed:

- Draft Agenda for today's meeting
- Draft Minutes of December 14, 2007
- Working Draft Certification for Nitrex – purpose: enable consideration of additional information provided by LAI

Minutes of December 14, 2007

Motion: Ken made a motion to accept the minutes with noted corrections.
Second: Tim seconded the motion.
Vote: All present, who were present at the December 14, 2007 meeting voted in favor (Susan Licardi, Tim Stasiunas, Dennis Vinhateiro and Ken Anderson)

Consideration of Expansion of Class I Design Authority

This topic was introduced by Russ at the December 14, 2007 meeting; the purpose being to evaluate a method of reducing the cost of repairs in areas where nitrogen removal will be required. If repair costs are too high there is risk of homeowners avoiding repair of their systems. DEM could allow this by policy under the vendor approval process; a rule change would not be necessary, as rules provide for Cl-I design of Alternative/Experimental Technologies for residential use designated by the Director as suitable for a Class I designer with a design flow of less than or equal to nine hundred (900) gallons per day.

Implementation of the proposed measure is expected to reduce Design Fee
Tim, as a Class I designer confirmed the expectation that design costs would be substantially less than those charged by a Cl-II or III; Cl-Is who have been installing advanced treatment systems understand very well how all the equipment goes together and would be able to produce good designs without difficulty.

Cl-II /III designed repairs involve the two professionals (designer and installer) rather than if a Cl-I A/E repair, which is within the purview of only one. This could be expected to save about $3,000 for a system with a conventional leachfield.

Implementation of the proposed measure is expected to eliminate Oversight fee: Class II & IIIs charge between $500 and & $1,500; Cl-Is will not charge this fee, as they are onsite performing the installation, there is no special trip to the site for inspection of construction.

Potential for additional cost reduction
Tim's company offers the first two-year O & M contract as part of the installation fee.

Criteria for Cl-I eligibility for proposed expanded authority
Currently the range of "approvable material" is wide for Cl-Is, this would have to be tightened-up for this Cl-I designed A/E repair.
Suggested options:

- Sample repair permit submission, evaluated by DEM. If the permit application is complete and accurate, all buoyancy calculations, pump calculations and curves, properly prepared and marked, would allow a Cl-I to submit permit applications for repairs incorporating advanced treatment. If not, no permit applications of this type would be accepted by the Department from this designer.
- Selection of most appropriate technology should be an element of this evaluation.
- Documented training on design and installation of the technology
- Installed successfully some prescribed number of times (6 or 7 perhaps)
- Could they be required to take the Cl-II or III exam? Answer: No; the eligibility criteria are RI registration as PLS and PE respectively.
- Development of a modified Class II-type exam

No reservations were expressed, as long as design ability could be demonstrated.

There was some discussion concerning **unacceptable Cl-I A/E repair applications** from a Cl-I who had been approved for the proposed expanded authority, what the impact of this may be on cost to the applicant. Also queried: how poor quality permit applications prepared by Cl-II & III designers are handled. Russ explained the process by which a permit application is returned with deficiencies and that in egregious cases of poor quality work, there is a peer review process by which a designer's license my be suspended or revoked with due process. It was suggested that a similar process could be developed for Cl-I A/E repairs.

Tim expects that only a few Cl-Is would be interested in pursuing this proposed expansion of design authority and noted that for those needing specialized training, drafting skills could be acquired by taking drafting courses, in addition to the classes available at the Training Center for design of BSFs and working through pump calculations. Perhaps there could be a new class developed specifically for the expansion of Cl-I design of A/E repairs.

It was suggested that if in SAMP areas all nitrogen removal permit applications are limited to Cl-II/III, there will be significant demand, therefore may expect the costs to increase and these two license classes may not be able to handle the volume of work. Combined relocated solutions in areas like Stafford Pond where very small lots are served by cesspools and replacement of these cesspools cannot be performed on lots of such small size; solutions of this type will have be designed by Cl-II and III designers.

Leachfield Requirement With Advanced Treatment in SAMP Areas

With consideration of time, this topic was tabled for discussion at the next meeting.

Nitrex Nitrogen Removal Application

To facilitate TRC review of information provided by LAI subsequent to TRC review of the technology application, in the context of "approvablity", Deb drafted a *working draft certification*, incorporating this information. LAI requested that RI not require recirculation of Nitrex-filtered effluent during start up. Cost and benefit of recirculation was discussed: recirculation requires a pump and associated expense. Recirculation during start up did not seem like a rational requirement considering the short-term during which TSS and BOD concentrations would be elevated. A decision was made to not require recirculation. It was agreed that if approved, we could look intensively at start up data and evaluate the appropriateness of this decision to not require recirculation.

There was discussion of the issue of media longevity, associated treatment capacity of the Nitrex filter and how to ensure the performance of individual systems. Monitoring frequency and to which party this responsibility should be assigned resulted in agreement that if approved, the certification would require that the O & M manual would require each system to be monitored once every two years for the life of the system. This would allow for cost to be incorporated in to the price of the service contract and assign responsibility for scheduling and performing the sampling on the service provider.

There was discussion of balancing vendor responsibility with homeowner responsibility. It was decided that if approved, the vendor would be required by certification to sample all systems four times each year (quarterly) for two years. Homeowners would be required to have the system inspected two times each year and after the initial two year interval during which LAI is responsible for sampling, test once every two years in perpetuity, as an O & M manual requirement. This results in homeowner testing being initiated in year 4 of system use.

It was noted that wastewater management districts will have to be informed of these requirements.

Motion: A motion was made by Noel to approve Nitrex for a Class II certification for nitrogen removal as discussed and as specified in the working draft approval.
Second: Dennis seconded the motion.
Vote: All present voted in favor.

Adjournment
Motion: Tim made a motion to adjourn the meeting.
Second: Ken seconded the motion.
Vote: All present voted in favor.

The meeting adjourned at 12:40 PM.

Next Meeting
Next meeting was scheduled for February 29, 2008, at **8:30** at the South Kingstown Town Hall at 180 High Street in Wakefield.