



April 7, 2010

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CT Dept. of Public Health

Sent via email: [robert.scully@ct.gov](mailto:robert.scully@ct.gov)

RE: Comments on CT DOH Leaching System Ratings

Dear Bob:

Thank you for the opportunity for Infiltrator Systems Inc. (ISI) to comment upon the leaching system credit subject matter.

The term you have described as "competing biomat" is a concern and warrants a thorough scientific review. The product ratings in Connecticut have risen very high, and without a sound scientific basis (as far as I know) and therefore may result in a threat to public health. Connecticut has allowed the inclusion of sidewall inside faces (internal geometry) which allows extremely high product ratings. There is a point where these faces are in very close proximity which then leads to the so-called "competing biomat" interfaces. Please note the following comments:

1. ISI supports existing CT DOH formula with regards to the 2.0 bottom area multiplier because this well supported by research (see attachments).
2. Sidewall should be vertical projection only (limited to 1' tall), ISI is not aware of any research or sizing practice in other states/provinces that would support "competing" biomats. No other states allow the sidewall credit with internal geometry to be analyzed in the way that CT DOH allows. Other states that allow credit for sidewall only credit the sidewall projection (actual sidewall of the trench excavation). ISI recommends that CT DOH credit only the trench excavation
3. The vast majority of states that Infiltrator Systems Inc. has received approval from are the result of painstaking scientific research. Due to the fact that onsite wastewater treatment systems protect public health, most of states require third party, peer reviewed research be submitted to demonstrate that the product will perform at the requested sizing. CT DOH may prefer to require that manufacturers supply appropriate research to support claims.
4. Trench center-to-center spacing and the relation to internal sidewall competing biomat: These two items: trench spacing and competing biomat are really the same issue. Trench spacing is provided to allow for oxygen diffusion (see figure 1 from US EPA attached) to the trench. Why an internal surface is allowed to be only inches away and yet an

adjoining trench has to be many feet away makes no sense (scientifically). Hence the internal geometry should be discounted from receiving credit.

5. With regards to the adjustments in sizing due to fill ISI is not aware of any science to support that rationale.
6. Some of the products have a minimal internal storage volume which has been sacrificed to obtain a greater sizing credit. ISI recommends that regulations be adopted for a minimum leaching system storage volume. Other states have adopted this, the basis of storage has been the storage provided by a conventional aggregate trench.

I hope that these comments are of some use to you and your review committee, I would be willing to come in and discuss these issues please contact me if you have any questions.

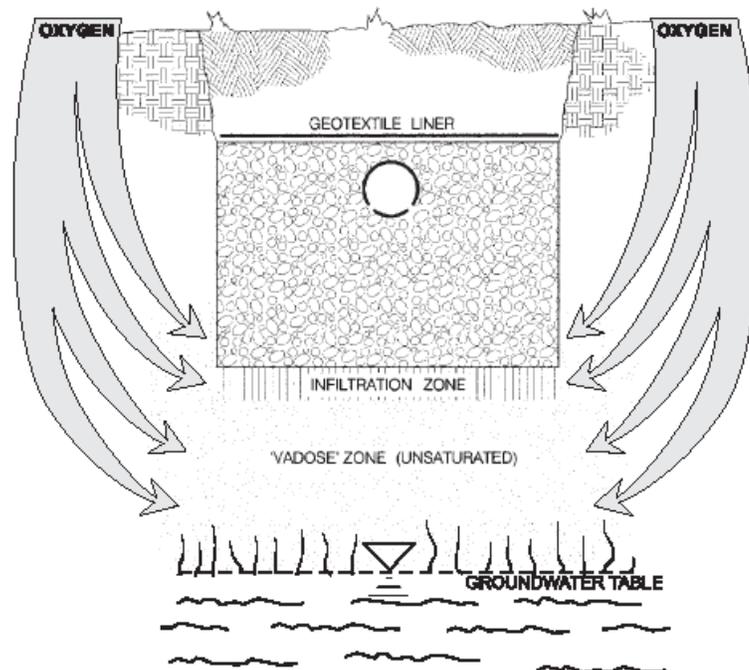
Best Regards, Dennis



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Figure 1: US EPA Onsite Wastewater Treatment Systems Manual, 2002



Source: Ayres Associates, 2000