



The Village of Barrington Hills
 112 Algonquin Road
 Barrington Hills, Illinois 60010-5199

October 8, 2010

Ms. Susan Meister
 Division of Legal Services
 Illinois Department of Public Health
 535 W. Jefferson St., 5th Floor
 Springfield, Illinois 62761

Re: Proposed IDPH Amendments
 Village of Barrington Hills Comments

Dear Ms. Meister:

The Barrington Hills Board of Health has reviewed the proposed amendments to the Private Sewage Disposal Code (77 Ill. Adm. Code 905), posted August 27, 2010. Since April 1984 the Village of Barrington Hills has administered a Private Sewage Disposal System Ordinance (Section 4-2-7 of the Village Code; hereinafter "Village Septic Code") as approved by the Illinois Department of Public Health and confirmed via an annual audit conducted by the Department.

The Village of Barrington Hills has traditionally sought to maintain more conservative requirements than the minimum standards of the IDPH Private Sewage Disposal Code (hereinafter IDPH Code), emphasizing systems relying upon gravity and proven soil treatment techniques as opposed to more mechanical systems. This practice is made possible by a predominance of five-acre residential zoning in the Village and is characteristic of the Village's desire to protect and preserve its natural resources. After careful consideration and review of the proposed amendments with the assistance and input of the Village Administrator and Village Engineer, the Barrington Hills Board of Health offers the following comments on the proposed amendments.

Section 905.55- Subsurface Seepage System Design Requirements

It is our understanding that the amended language of this section would eliminate the percolation test for use in design of subsurface seepage fields and allow only soil investigation/classification for this purpose. The Village acknowledges that soil classification can provide valuable information that cannot be determined solely through a percolation test. In December of 2009 the Village of Barrington Hills passed an ordinance that allows for the consideration of soil classification to supplement the information provided by a percolation test when deemed necessary by the Building Official. However, we urge the Department to reconsider the elimination of percolation tests as an option for design.

1. *Consistency with IDPH Practice-* As the Village has strived to maintain a conservative septic code, we have understood the position of the IDPH Code to be that of a baseline for the state, allowing the Village and county health departments around the state to be more stringent in certain areas as they see fit and appropriate for their specific locations.

An example of this practice is in the sizing of chamber systems. The IDPH Code allows a sizing credit of 4 square feet per linear foot for the Quick4 Equalizer 36 Chamber, despite guidance from

the USEPA which questions the validity of the scientific evidence for this type of sizing credit.¹ However, adopting a more lenient standard allows those health departments that disagree with the sizing credit to adopt a more stringent standard. Locally Kane and Cook Counties concur with the IDPH Code provision of 4 square feet per linear foot, while Lake and McHenry Counties are less convinced of the benefits of such a system and have adopted a more stringent standard of 3 square feet per linear foot.

The IDPH would best serve the state of Illinois by adopting a similar position towards soil testing. There are certainly more densely developed areas throughout the state that should require soil classification as opposed to a percolation test. By the same token, there are land use densities and patterns of development throughout the state that simply do not require the expense or level of detail typical of soil classification. A properly conducted percolation test can provide sufficient design certainty in rural and other low density situations. Allowing both options, as the current code does, puts that determination back in the hands of local health departments that are most familiar with local development practices.

2. *Validity of the Percolation Test-* Many of the IDPH Responses provided in the “Comments from Interested Parties on Preliminary Draft Code Amendments” indicate a distrust in percolation test procedures being followed. The Village of Barrington Hills has always required that a Village representative conduct two pre-soak evaluations prior to the percolation test in addition to witnessing the final hour of the test. These three inspections provide ample opportunity to confirm that test procedures are followed and that the data is not manipulated. Without a witness, percolation test results can indeed be “manipulated to achieve a desired goal”, but the same can be said for soil investigations performed without a witness.

It is also noted that the most recent changes made by IDPH to the percolation test procedures made the test much more difficult to effectively witness. Traditionally the drop in water level was measured at hourly intervals and every thirty minutes of the final hour, and the water refilled to the starting point after each measurement. The final hour was very easy to witness. The revised procedure, which required a measurement only of the total time required for the water level to drop 6”, make the test more difficult to monitor without making it more precise.

3. *Availability of Soil Classifiers-* Soil Classification is a very specialized skill, one that is not obtained simply through maintaining a professional engineer’s license or working in a local health department. The proposal to simply allow more people to conduct these evaluations is not practical. Despite the representation made that there are sufficient soil classifiers through the state, a grand total of eight qualified soil classifiers are available for Lake and McHenry counties combined (see <http://www.illinoissoils.org/map/index.htm>), which have both required soil classification for several years. Further study should be conducted for counties located downstate, where the pool is limited to same two or three practicing professionals for a group of dozens of counties.

It seems particularly questionable that the IDPH would rely upon the representation of the Illinois Soil Classifier’s Association that there will be enough qualified individuals to complete evaluations throughout the state, when it is this group and their members that would stand to benefit the most from the adoption of the amendment in question.

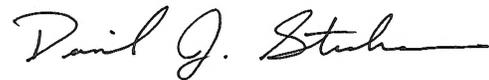
¹ The February 2002 “Onsite Wastewater Treatment Systems Manual, published by USEPA, indicates, “these reductions are not based on scientific evidence though they have been codified in some jurisdictions (Amerson et al., 1991; Anderson et al., 1985; Carlile and Osborne, 1982; Effert and Cashell, 1987). Although gravel masking might occur in porous medium applications, reducing the infiltration surface area for gravelless systems increases the BOD mass loading to the available infiltration surface. Many soils might not be able to support the higher organic loading and, as a result, more severe soil clogging and greater penetration of pollutants into the vadose zone and ground water can occur (University of Wisconsin, 1978), negating the benefits of the gravelless surface.

Appendix A- Illustration D- Minimum Setbacks

The Village questions the necessity of a 200' setback from Class V injection wells. As a low density residential Village without a central storm sewer, dry well catch basins have been utilized through the Village as a means of promoting infiltration of stormwater and reducing runoff rates. Requiring a 200' setback from these dry wells could greatly limit the adjacent property owners in terms of location of their septic field. As the rationale would seem to be based upon preventing the contamination of groundwater, we would suggest that 75' (required setback from a domestic well) would be an appropriate setback from a Class V injection well also.

The Village would like to thank the Department for the opportunity to provide comment on the proposed code amendments. We believe that if considered the comments offered above would enable the proposed amendments to better serve not only the Village of Barrington Hills but the state of Illinois as well.

Sincerely,
Village of Barrington Hills



Daniel J. Strahan, P.E., CFM
Village Engineer

cc: Robert Abboud, Village President
Gwynne Johnston, Board of Health Chairman
Robert Kosin, Village of Barrington Hills
Dolores Trandel, Village Clerk

bcc: Board of Trustees