

Virginia Regulatory Town Hall

Notice of Intended Regulatory Action Agency Background Document

Agency Name:	Virginia Department of Health
VAC Chapter Number:	12 VAC 5-610-10 et. seq.
Regulation Title:	Sewage Handling and Disposal Regulations
Action Title:	<i>Onsite Sewage Regulations</i>
Date:	November 7, 2005

This information is required prior to the submission to the Registrar of Regulations of a Notice of Intended Regulatory Action (NOIRA) pursuant to the Administrative Process Act § 9-6.14:7.1 (B). Please refer to Executive Order Twenty-Five (98) for more information.

Purpose

Please describe the subject matter and intent of the planned regulation. This description should include a brief explanation of the need for and the goals of a new or amended regulation.

Over the past fifteen years the onsite wastewater industry has expanded and developed at a remarkable rate, spawning new wastewater treatment technologies, new dispersal methods, and new wastewater management schemes. The scope and nature of the changes has outstripped VDH's ability to address them within its' current regulatory scheme. These changes have the potential to benefit all citizens of the Commonwealth by improving water quality, public health and the environment. Additionally, industry developed treatment, dispersal, and management options may provide Virginia residents with new options to develop property that heretofore did not "perc".

The Virginia Department of Health ("VDH") proposes to repeal 12 VAC 5-610-10 et. seq., the *Sewage Handling and Disposal Regulations*, and to propose replacement regulations, 12 VAC 5-612-10 et seq., the "*Onsite Sewage Regulations*".

The *Onsite Sewage Regulations* will propose site and soil requirements, design and construction criteria, and approval methods for wastewater systems based on effluent quality. The *Onsite Sewage Regulations* will also define the terms and set objective standards for secondary, advanced secondary and tertiary wastewater treatment systems and effluent quality that results from such treatment systems. To maintain consistency, avoid confusion, and allow comparison, site and soil requirements for dispersing septic tank effluent (STE) will be presented in the "footprint" format. However, the *Onsite Sewage Regulations* will not substantially change the

design and construction requirements for sewage systems dispersing STE as currently practiced in Virginia. The minimum footprint for systems dispersing STE will remain the same.

The *Onsite Sewage Regulations* will include new requirements for operating, maintaining, and monitoring all onsite sewage systems, including community onsite systems (also known as decentralized systems) and will propose requirements to certify operation and maintenance service providers as well as sewage system installers. Administrative procedures for permit applications and system approvals will be updated to reflect current law and process.

Basis

Please identify the state and/or federal source of legal authority to promulgate the contemplated regulation. The discussion of this authority should include a description of its scope and the extent to which the authority is mandatory or discretionary. The correlation between the proposed regulatory action and the legal authority identified above should be explained. Full citations of legal authority and web site addresses, if available, for locating the text of the cited authority must be provided.

Section 32.1-164 of the *Code of Virginia* gives the Board of Health authority to administer Virginia's onsite sewage program and to establish standards for siting, designing, and operating onsite sewage systems.

Substance

Please detail any changes that would be implemented: this discussion should include a summary of the proposed regulatory action where a new regulation is being promulgated; where existing provisions of a regulation are being amended, the statement should explain how the existing regulation will be changed. The statement should set forth the specific reasons the agency has determined that the proposed regulatory action would be essential to protect the health, safety or welfare of citizens. In addition, a statement delineating any potential issues that may need to be addressed as the regulation is developed shall be supplied.

The *Sewage Handling and Disposal Regulations* were first adopted in 1971 and later updated in 1982 and 2000. The requirements were prescriptive in nature and did not and still do not offer design flexibility. The initial *Regulation* and subsequent revisions were focused on an implementation model in which the local health departments were the sole service provider and very few construction and design alternatives were available for onsite sewage systems. These past realities no longer exist today.

In the recent past there were only three basic wastewater systems approved for use in the Commonwealth. The marketplace now provides designers with hundreds of proprietary treatment devices and dozens of dispersal schemes and products with the end result being a nearly infinite number of ways to combine the components to achieve a wastewater system design. The *Sewage Handling and Disposal Regulations* recognize only a small number of the potential treatment and dispersal options available. The guidance for the review and approval of alternative systems in the current regulations is based on fifteen year old knowledge. The

principle method of approval involves 18 or more months of testing at a current cost of about \$300,000. Current knowledge could allow quicker reviews at lower costs to the applicant.

The *Regulations* were written and revised when the local health department was the sole service provider. This is no longer reality. In July 2002, the Board of Health adopted the Authorized Onsite Soil Evaluator (“AOSE”) Regulations, which allows private sector persons to evaluate site and soil conditions for onsite sewage systems and to design and inspect onsite sewage systems. With the plethora of design options available and with private sector persons using regulations designed under a different paradigm, the *Sewage Handling and Disposal Regulations* no longer adequately address the market’s current needs. VDH has attempted to keep up with the market’s demands by adopting a patchwork of policies that interpret outdated regulations in order to allow the use of emerging technologies. The best way to comprehensively and adequately address the paradigm shift is replacement of the outdated regulations and policies with a comprehensive set of regulations based on current realities.

The *Onsite Sewage Regulations* will present a relationship among three basic parameters: soil and site conditions, effluent quality and quantity, and management levels. The relationship created by the Onsite Regulations between these three parameters will allow system designers to find onsite wastewater solutions using the current technologies within the available management infrastructure.

The *Onsite Sewage Regulations* will establish the minimum area of suitable site and soil conditions (a “footprint”) based on effluent quality. The "Footprint" means the delineated area (measured in square feet) certified by the site evaluator for the eventual design and placement of an effluent dispersal method and repair. The size of the footprint will be based on the permeability of the soils where each footprint area is located, the effluent distribution method, the effluent quality, the quantity of effluent to disperse, the depth to a limiting factor, and the level of management available for the onsite system. The sizing of the footprint will consider area loading, organic loading, instantaneous loading, and hydraulic linear loading. Within the footprint and certain management availability, AOSEs, professional engineers (“PE”), or AOSE/PEs would have much greater flexibility to design onsite sewage systems using a management and performance model rather than a prescriptive one.

All onsite sewage systems require operation and maintenance (O&M). Septic effluent systems using a pump and other systems that disperse secondary, advanced secondary, or tertiary effluent have mechanical parts and electrical components that need periodic inspection and maintenance. Systems that use a septic tank also need periodic inspection to determine whether solids must be removed and to assure that tank integrity has not been compromised. Some manufacturers offer owners a maintenance agreement with the purchase of their treatment device. Generally, but not always, these contracts are for two years or less. Current regulations fail to assure ongoing operation and maintenance. Furthermore, they do not assure that owners are adequately informed and protected by the maintenance agreements. The *Onsite Sewage Regulations* propose operation and maintenance criteria for all systems to assure that owners are adequately informed about their systems’ maintenance needs and are adequately protected through proper

maintenance agreements. The *Onsite Sewage Regulations* propose certification and continuing education requirements for persons who inspect and maintain onsite sewage systems. This change is based in part on public comments received during the 2000 updates to *Sewage Handling and Disposal Regulations*.

The current regulations do not adequately address mass sewage disposal systems or managed decentralize wastewater treatment options. The Department proposes to incorporate a consensus position on mass sewage disposal systems that continues to allow their use where appropriate based on nitrogen loading rates and groundwater mounding limitations similar to those used today by policy. For managed decentralized systems VDH will propose options that will provide political jurisdiction with an infrastructure option that will allow environmentally sound development to occur within a wide range of receiving environments that should allow cities, towns, and counties to better manage their growth in accordance with their needs.

As sewage system installations and designs have become more complex, new skills and better understanding is needed to install them. The *Onsite Sewage Regulations* propose certification and continuing education requirements for contractors who install onsite sewage systems. Certification and continuing education requirements will be proposed for contractors based on the complexity of the onsite system they like to install. This proposal is based in part on requests made since the Board of Health updated the *Sewage Handling and Disposal Regulations* in 2000.

Alternatives

Please describe, to the extent known, the specific alternatives to the proposal that have been considered and will be considered to meet the essential purpose of the action.

VDH has considered several alternatives to deal with the comprehensive changes in the onsite industry. These include:

1. Doing nothing.
2. Using the current regulations and expanding policies
3. Amending the current regulations
4. Repealing the existing regulations and adopting new regulations.

The first option (doing nothing) fails to make use of any of the benefits of recent research and technology and does not benefit the citizens. The second option is what VDH is currently using and it fails to provide a satisfactory solution because the current *Regulations* are prescriptive in nature and the onsite industry developments are too extensive in scope and content to be addressed by the current regulation. The patchwork policies can best be described as a band-aid approach where major surgery is needed. Amending the current regulations would be possible but the changes and additions are so extensive that the result would be functionally a new set of regulations. Option 4, repealing the current regulations and adopting new regulations, appears to

be the most rational approach to deal with the shortcomings of the current regulations. VDH has attempted this route in the recent past and met significant opposition.

In 2001, VDH published a NOIRA in the Virginia Registrar to update the *Sewage Handling and Disposal Regulations* to propose operation and maintenance requirements for onsite sewage systems and to require new site and soil criteria for dispersal of treated effluent. VDH formed an ad-hoc advisory committee to assist in developing a set of draft regulations in accordance with the NOIRA. The ad-hoc committee met seven times from July 2001 to December 2001. Stakeholders included representatives from the Home Builders Association, the Virginia Environmental Health Association, the Virginia Association of Professional Engineers, the Virginia Association of Professional Soil Scientists, the Virginia Association of Authorized Onsite Soil Evaluators, the Virginia Department of Health (local health department and state representatives), the Virginia Onsite Wastewater Recycling Association, the academic community, the septic installer community, the Chesapeake Bay Local Assistance Board, and several manufacturers. VDH also convened an employee task force committee to assist with revisions. VDH held over 10 information and discussion meetings around the state to inform stakeholders of the draft regulations and proposed changes.

The ad-hoc advisory committee, the VDH task force committee, and other stakeholders helped VDH to propose a draft set of regulations. The draft regulations were revised over 10 times from December 2001 through September 2002. On September 21, 2002, the Board of Health proposed the regulations developed from the stakeholders. But in November 2002, VDH placed the proposed regulations into administrative and executive review because of continued stakeholder concerns about the cost of operation and maintenance and the magnitude of changes. Because of the length of time that the regulations have been in administrative and executive review and the additional changes made since then, VDH proposes this NOIRA to begin the public comment process again.