

Guidance Document

To: Regulants & Other Members of the Public
From: Virginia Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers, and Landscape Architects (APELSCIDLA Board)
Date: December 15, 2011
Re: Onsite Sewage Systems Designed by PE's and Onsite Soil Evaluators

Purpose

The purpose of this document is to clarify the requirements for onsite sewage systems designs as completed by a licensed professional engineer (PE) or a licensed onsite soil evaluator. All systems consist of both the treatment *and* dispersal components.

Background

§ 54.1-406 of the *Code of Virginia* requires a license for any person engaging in the practice of engineering unless otherwise exempt pursuant to §54.1-401, 54.1-402, or 54.1-402.1. The full text of the statute reads as follows:

A. Unless exempted by § [54.1-401](#), [54.1-402](#), or [54.1-402.1](#), a person shall hold a valid license prior to engaging in the practice of architecture or engineering which includes design, consultation, evaluation or analysis and involves proposed or existing improvements to real property.

§ 54.1-402 of the *Code of Virginia* contains various exemptions from licensure for specific activities meeting specific conditions. The full text of the licensure exemption regarding onsite sewage systems is contained in §54.1-402.A.11 reads as follows:

§ 54.1-402 Further exemptions from license requirements for architects, professional engineers, and land surveyors.

A. No license as an architect or professional engineer shall be required pursuant to § [54.1-406](#) for persons who prepare plans, specifications, documents and designs for the following, provided any such plans, specifications, documents or designs bear the name and address of the author and his occupation:

11. Conventional and alternative onsite sewage systems receiving residential wastewater, under the authority of Chapter 6 of Title 32.1, designed by a licensed onsite soil evaluator, which utilize packaged equipment, such as equipment of catalogued standard design that has been coordinated and tested by the manufacturer, and complies with all applicable codes, provided (i) the flow is less than 1,000 gallons per day; and (ii) if a pump is included, (a) it shall not include

multiple downhill runs and must terminate at a positive elevational change; (b) the discharge end is open and not pressurized; (c) the static head does not exceed 50 feet; and (d) the force main length does not exceed 500 feet.

Normally, a PE license is required to design an onsite sewage system, however; pursuant to the exemption listed above, a licensed onsite soil evaluator may design a system so long as the system meets all of the following criteria:

1. Utilizes packaged equipment, such as equipment of catalogued standard design that has been coordinated and tested by the manufacturer, and complies with all applicable codes;
2. Produces a flow which is less than 1,000 gallons per day; and
3. The pump (if a pump is included) does not include multiple downhill runs, terminates at a positive elevational change; the discharge end is open and not pressurized; the static head does not exceed 50 feet; and the force main length does not exceed 500 feet.

As long as all three of the above conditions are met, a PE license is not required and the system may be designed by a licensed onsite soil evaluator. However, if any of the above three conditions are not met, the system (and not just that component) must be designed by a licensed PE.

Summary

An onsite sewage system that does not meet *each* of the above three conditions must be designed by a licensed PE. For any condition that is not met, it is not acceptable to have a PE sign and seal only that component; the PE is responsible for the entire system design. An onsite soil evaluator shall be responsible for any work he performs regarding a soil evaluation. A PE shall be responsible for the work he performs based on the soil evaluation.

This does not preclude the involvement of a licensed onsite soil evaluator in designing an onsite sewage system; it only means that the PE must sign and seal the entire system because the licensed onsite soil evaluator no longer meets the exemption contained in § 54.1-402.A.11. The PE may utilize the soils work of the licensed onsite soil evaluator but the PE must sign and seal the complete system design.

In situations when conditions 1-3 above are met, the system may be designed, signed, and sealed by a licensed onsite soil evaluator. Should a PE be involved in any design of the system, regardless if a PE license is required, he must sign and seal his work pursuant to Board regulations.