



COMMONWEALTH of VIRGINIA

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MEMORANDUM

To: Environmental Health Managers

From: Donald J. Alexander, Director
Division of Onsite Sewage and Water Services

A handwritten signature in black ink, reading "Donald J. Alexander", with a large flourish at the end.

Subject: GMP #112.A, #114.A, and #118.A clarifications

Revisions to GMP's #112, #114 and #118 were issued on April 9, 2008. The intent of the revisions was to improve statewide consistency in implementing the policies by more clearly stating the original intent and scope of the policies. The revisions focused on those areas where the implementation of the original GMPs had gone beyond what the system testing had demonstrated.

An unintended consequence of the revised policies was an impact on the cost of development in certain areas of the Commonwealth. In particular, several builders, developers, AOSEs, and Professional Engineers in the Winchester, Virginia area requested a meeting to present Department of Health representatives with the hardships they were encountering. This meeting was held on June 5, 2008 and this memo is largely a result of that meeting.

The principal issue of concern with the revised policies was the separation distance to impervious strata for shallow placed systems. The revised policies reflect the definition of impervious strata found in the Sewage Handling and Disposal Regulations (i.e., "a soil feature that has a measured or estimated percolation rate in excess of 120 minutes per inch"). Impervious strata may include but are not limited to bedrock, pans, restrictions, or shrink-swell soil. In some areas of the Commonwealth, site evaluators considered all bedrock as being impervious, which is not the intent of the Department. Bedrock may be pervious or impervious and site evaluators should look carefully at the morphological features of the soil horizons overlying the bedrock and assess whether or not the bedrock meets the regulatory definition of an impervious strata.

The intent of the policy was to reflect research conducted by Virginia Tech and subsequently incorporated in various experimental and provisional approvals granted by

the Department. Specifically, when dealing with highly treated effluent, 12 inches of naturally occurring unsaturated soil is necessary to complete treatment sufficient to protect public health and 18 inches of material (not necessarily unsaturated) to an impervious horizon will provide adequate soil volume for effluent dispersal. The 12 inch unsaturated zone provides treatment and the 18 inches of permeable material (saturated or unsaturated, soil or rock) provides a receiving environment that is adequate for sustained dispersal of effluent flows under 1,000 GPD.

The Department, recognizing that permits had been issued that deviated from the intent of the original policies, included in each of the revised GMPs a provision to allow the practice installing dispersal systems as close as 12 inches to an impervious strata to continue. However, the revisions require additional evaluation by a licensed professional engineer to determine that the practice is not likely to result in a hydraulic failure of the system. Specifically the policy contained the following provision:

The separation distance to an impervious strata may be reduced from 18 inches to a distance not less than 12 inches below the trench bottom when a professional engineer certifies in writing that they have evaluated the hydraulic capacity of the site to disperse wastewater and that in their professional opinion, water mounding will not encroach on the separation distance required in Table 1 above. *(note: Table 1 appears in GMPs #112.A, #114.A, and 118.A, not in this memo)*

At the June 5th meeting, concern was raised regarding this provision. A specific request was made that previously granted approvals be "grandfathered" in four specific situations. These included the following types of approvals:

1. Existing subdivision lots, meaning lots approved based on a site being found suitable for use of one of the systems allowed by the referenced GMPs, and
2. Sites with a certification letter, and
3. Lots with existing permits, and
4. Subdivision lots "in process", meaning subdivision that have been reviewed and signed off by VDH but have not yet been recorded because they are awaiting review and approvals from other agencies and/or county departments that are part of the subdivision approval process.

After consideration of the request, the Department believes the request is reasonable and consistent with the requirements of the Sewage Handling and Disposal Regulations, under which the policies were implemented. Consequently, in those instances where a prior written approval has been granted, the "Grandfather Clause" of the Regulations (12 VAC 5-610-70) shall apply. The Sewage Handling and Disposal Regulations require that permits issued under the provisions of the Grandfather Clause be recorded. However, for the purposes of complying with GMPs 112.A, 114.A and 118.A, the site shall be considered to substantially comply with requirements of Part IV of the *Sewage Handling*

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and Disposal Regulations and no requirement shall be made to record the permit as a conditional permit when at least one of the following conditions are met:

1. The stand-off distance to an impervious strata is 18 inches or more below the infiltrative surface where effluent is applied, or
2. An AOSE has certified that bedrock encountered within 18" is not an impervious strata, or
3. An engineer has certified water mounding will not encroach on the separation distance required in Table 1 of the GMP.

In those instances where an application is received to renew a construction permit, or convert a prior approval to a construction permit, and one or more of the three conditions above are not met, the permit shall be issued as a conditional permit in accordance with 12 VAC 5-610-70 C.

A secondary issue that was raised at the June 5, 2008 meeting involved collecting data to establish whether or not the 18 inch separation distance to an impervious stratum could be reduced to 12 inches. This condition was not evaluated in the initial studies. The Department expressed a willingness to work with Virginia Tech to determine if this change could be justified; however, funding for such a study was not within VDH's budget and given the current budget crisis, it did not appear likely that VDH would be able to fund such a study. Several individuals in attendance indicated a willingness to identify private funding sources and work with Virginia Tech to complete the study. The Department reiterates its commitment to working with Virginia Tech to over-see such a study and expresses its willingness to reconsider the stand-off distance to impervious strata contained in GMPs #112.A, #114.A, or 118.A based on the data collected in such a study.