



COMMONWEALTH of VIRGINIA

Department of Health

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State Health Commissioner

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June 3, 2020

David Potts
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Geomatrix Systems, LLC
114 Mill Rock Rd East
Old Saybrook, CT 06475

Subject – General Approval of GeoMat Pressure and Gravity Leaching System as a Treatment Level 2 (TL-2), wastewater treatment system – revised Design Manual

Dear Mr. Potts,

The Virginia Department of Health (VDH) received a modified Design Manual for the GeoMat Pressure and Gravity Leaching System (GeoMat) dated May 29, 2020. GeoMat was recognized as a generally-approved Treatment Level 2 (TL-2) treatment system on October 25, 2016, based on documentation demonstrating that GeoMat has been tested in accordance with NSF/ANSI Standard 40 and that the results of that testing met the requirements for Class I effluent under Standard 40. This letter reiterates that original approval as a TL-2 treatment system when designed in accordance with the requirements of the revised 2020 GeoMat design manual. See the original October 25, 2016, approval letter for additional details.

GeoMat is a low profile modular wastewater treatment/infiltration system. It consists of a 6-inch sand bed placed directly on top of the receiving soil absorption area. A 1-inch thick mat (core) – 12 or 36 inches in width – of fused, entangled plastic filaments with underlying geotextile fabric is placed on top of the sand layer. Dispersal piping (1-inch diameter for pressure distribution or 2 inch diameter for gravity dispersal) is placed on top of the mat (core) and covered with a layer of non-woven geotextile fabric. The GeoMat may be installed in the shallow soil horizon to allow for enhanced aeration, increased microbial activity, enhanced nutrient removal, enhanced plant uptake and increased evapotranspiration. Cleanout ports are provided at the distal ends of the dispersal piping.

Alternatively, the GeoMat system may be utilized for the following purposes when specifically designed in accordance with the applicable requirements in the GeoMat design manual.

- as an onsite wastewater dispersal system only (no additional BOD5 or TSS removal credit is ascribed to the system beyond that provided by upstream treatment)
- as a means of nitrogen reduction when TL-2 or TL-3 effluent from upstream treatment processes is dispersed to the GeoMat system under pressure
- as a means of increasing vertical separation to a limiting feature

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This general approval extends only to applications (systems) with a rated capacity of less than or equal to 1,000 gallons per day.

If you have additional questions regarding this matter, please feel free to contact me at (804) 387-1883 or by email at Marcia.Degen@vdh.virginia.gov. A copy of this letter and the submitted manual will be posted on the VDH website.

Sincerely,

A handwritten signature in black ink that reads "Marcia J. Degen". The signature is written in a cursive style with a large, stylized initial "M".

Marcia J. Degen, Ph.D., P.E.
Technical Services Administrator
Division of Onsite Sewage, Water Services
Environmental Engineering & Marina Programs

Cc. Sean McGuigan, Three S Environmental, Inc., 18291 Winston Loop, Hanover, VA 23069
Lance Gregory, Division Director
Douglas F. Canody, P.E., Technical Services Engineer