

M. Norman Oliver, MD, MA State Health Commissioner Department of Health
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Richmond, VA 23218

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August 2, 2021

Ty Hunter, President, CEO

ty@clearstreamsystems.com

Clearstream Wastewater Systems, Inc.
PO Box 7568

Beaumont TX 77726

VIA ELECTRONIC AND REGULAR MAIL

RE: Treatment Level 3 General Approval of Clearstream Model DA Treatment Units

Dear Mr. Hunter:

We have completed our review of your request for listing of Clearstream's DA series wastewater treatment units as "Generally Approved" under the Virginia Department of Health's (VDH's) Guidance, Memorandum, and Policy (GMP) 2016-03 and in accordance with the Treatment Level 3 (TL-3) general approval requirements in the *Regulations for Alternative Onsite Sewage Systems* (12 VAC5-613, *AOSS Regulations*).

The complete submittal for review consists of the following:

- 1. Application submitted September 6, 2016
- 2. Memorandum of Understanding and Agreement, signed and dated September 28, 2016 Extension: Memorandum of Understanding and Agreement, signed and dated August 15, 2019
- 3. Owner, Operation, & Installation Manual & Design Drawings for the approved units, as revised June 22, 2021.
- 4. Quality Assurance and Quality Control Plan
- 5. Agreement between Gulf Coast Testing and Clearstream, dated September 6, 2016.
- 6. Engineer's Operation and Maintenance Manual Certification Statement by Joel Pinnix, PE, dated August 12, 2016
- 7. Engineer's Treatment Level 3 Certification Statement by Joel Pinnix, PE, dated August 12, 2016
- 8. Excel spreadsheet with individual site information and relevant data entered into the VDH data analytical spreadsheet
- 9. Final Report for TL-3 Listing, dated March 29,2021

Based on our review, VDH approves the referenced Clearstream DA wastewater treatment units for listing as "Generally Approved" under GMP 2016-03 and as "Generally Approved" for TL-3 effluent treatment under the *AOSS Regulations*. The effluent testing results indicate a predicted BOD₅ of 8.4 mg/l and TSS of 7.6 mg/l using the protocol established in GMP 2016-03. See the attached review memo for discussion of the review.

The specific units included in this approval are below.

Rated Treatment Capacity (gallons per day)	Model
500	500DA, 500DAST, 500DAC, and 500DASC
600	600DA, 600DAC, 600DAT, 600DAC2, and 600DAC3
800	800DA and 800DAC2
1000	1000DA

The Clearstream DA models are already included in GMP 2013-01 as 50% nitrogen reducing units on the basis of their NSF 245 certification. GMP 2013-01 will be modified to reflect the TL-3 General Approval Status.

Please feel free to call me at (804) 387-1883 or contact me by email at Marcia.Degen@vdh.virginia.gov if you have any questions.

Sincerely,

Marcia J. Degen, Ph.D., P.E.

Technical Services Administrator

Division of Onsite Sewage, Water Services,

Environmental Engineering & Marina Programs

Marcia J. Dogen

Attachment: Review Memo

Cc: Lance Gregory, Division Director