



COMMONWEALTH of VIRGINIA

Department of Health
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Acting State Health Commissioner

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May 23, 2022

Lisa McKelvey
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AquaO2 Wastewater Treatment Systems
P.O. Box 132
Wirtz VA 24184

Subject – General Approval of Aquarobic Mini-Plant as a Treatment Level 2 (TL-2) wastewater treatment system

Dear Ms. McKelvey,

You submitted a request that the Virginia Department of Health (VDH) recognize the Aquarobic Mini-Plant as a generally-approved Treatment Level 2 (TL-2) treatment system under 12VAC5-613. Treatment Level 2 is defined as producing an effluent containing no greater than 30 mg/l BOD5 and TSS. Submitted in support of that request was documentation demonstrating that the Mini-Plant 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. Units meeting the Standard 40 criteria are recognized as generally approved for TL-2 by VDH.

The unit had been listed on the NSF website but AquaO2 dropped the listing due to low volume of residential units sold. You have stated that there have been no changes to the unit's design and it complies with the original NSF approval.

The Mini-Plant is a sequencing batch reactor that can be installed in either a concrete or fiberglass tank. No additional septic/trash tank is required ahead of the treatment unit. The approved models and capacities based on the previous NSF listing are as follows:

Table with 3 columns: Model 115V or 230V, Design Capacity, gpd, Tank type. Rows include Mini-Plant 54291-5 (500 gpd), Mini-Plant 54291-6 (600 gpd), Mini-Plant 54291-7 (700 gpd), and Mini-Plant 54291-7.5 (750 gpd). All tanks are concrete or locally approved per AquaO2 specifications.

Ms. Lisa McKelvey

May 23, 2022

Page two

Mini-Plant 54291-8	800	Concrete or locally approved tank per AquaO2 specifications
Mini-Plant 54291-9	900	Concrete or locally approved tank per AquaO2 specifications
Mini-Plant 54291-10	1000	Concrete or locally approved tank per AquaO2 specifications
Mini-Plant F54291-5	500	Fiberglass
Mini-Plant F54291-6	600	Fiberglass
Mini-Plant F54291-7	700	Fiberglass
Mini-Plant F54291-7.5	760	Fiberglass
Mini-Plant F54291-8	800	Fiberglass
Mini-Plant F54291-9	900	Fiberglass
Mini-Plant F54291-10	1000	Fiberglass

This general approval is limited by regulation to treatment units with a rated capacity of less than or equal to 1,000 gallons per day (12VAC5-613). AquaO2 has units with higher design flows, but they are not eligible for the general approval designation.

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, the NSF report, the drawings, and the submitted Operations and maintenance manual will be posted on the VDH website.

Sincerely,



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

Cc. Lance Gregory, Division Director
VDH Technical Services Staff
Local Health Department Staff