



COMMONWEALTH of VIRGINIA

Department of Health
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Richmond, VA 23218

M. Norman Oliver, MD, MA
State Health Commissioner

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May 28, 2020

Colin Bishop, Chief Executive Officer

colin.bishop@anuainternational.com

Anua

P.O. Box 77457

Greensboro, NC 27417

VIA ELECTRONIC AND REGULAR MAIL

RE: Transfer Treatment Level 3 Approval of Quanics BioCoir to Anua International

Dear Mr. Bishop:

On June 6, 2019, you notified the Virginia Department of Health (VDH) that Anua International (Anua) acquired Quanics. The Quanics BioCoir wastewater treatment unit received General Approval for Treatment Level 3 (TL3) from VDH on May 23, 2012. On November 1, 2019, Anua requested (1) transfer of the TL3 General Approval for the BioCoir unit from Quanics to Anua and (2) revisions to the model listing. We have completed our review of your request for transfer of the General Approval and modification of the units listed under the approval. The following BioCoir wastewater treatment unit models are listed as “Generally Approved” under the Virginia Department of Health’s (VDH’s) 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*).

Virginia TL-3 BioCoir Chart

| Pod Model | Bedrooms | Flow Rating (gpd) | Media Volume (ft ³) | Media Loading (gpd/ft ³) | Pod Housing |
|-----------------------|----------|-------------------|---------------------------------|--------------------------------------|----------------------------------|
| ATS-SCAT-3-BC-200 | 1 | 150 | 16 | 9.4 | Quanics FRP |
| ATS-SCAT-4-BC-400 | 2 | 300 | 32 | 9.4 | Quanics FRP |
| ATS-SCAT-6-BC-650 | 3 | 450 | 53 | 8.5 | Quanics FRP |
| ATS-SCAT-8-BC-1000 | 4 | 600 | 85 | 7.1 | Quanics FRP |
| ATS-540-BC-N-TL3 | 4 | 600 | 81 | 7.4 | Infiltrator IM-540 |
| ATS-1060-BC-N-TL3 | 6 | 900 | 136 | 6.6 | Infiltrator IM-1060 |
| ATS-NS500-BC-N-TL3 | 4 | 600 | 82 | 7.3 | Norwesco-Snyder Next Gen D2 500 |
| ATS-NS750-BC-N-TL3 | 5 | 750 | 112 | 6.7 | Norwesco-Snyder Next Gen D2 750 |
| ATS-NS1000-BC-N-TL3 | 6 | 900 | 137 | 6.6 | Norwesco-Snyder Next Gen D2 1000 |
| ATS-NS500-80/20-BC-N | 4 | 600 | 82 | 7.3 | Norwesco-Snyder Next Gen D2 500 |
| ATS-NS750-80/20-BC-N | 5 | 750 | 112 | 6.7 | Norwesco-Snyder Next Gen D2 750 |
| ATS-NS1000-80/20-BC-N | 6 | 900 | 137 | 6.6 | Norwesco-Snyder Next Gen D2 1000 |

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The BioCoir treatment unit is a recirculating media filter which is preceded by a septic tank. The media loading rate in the above table is well below the media loading rate used in the TL3 testing of 11.8 gpd/ft³. [Note: The TL3 testing was conducted at a different loading rate than was tested under the NSF40 certification. The higher loading rate was based on testing done in Kentucky.] The settled effluent flows into a recirculation tank with a pump that time doses the media filter. The standard recirculation rate is 80:20 or 4:1. The minimum septic tank size is two times the design flow. The recirculation tank is sized as one times the design flow.

Influent and effluent nitrogen testing was also conducted during the TL3 testing. Twenty systems were tested quarterly for a year. Negative values were dropped from the evaluation. A total of 65 data points were used to generate a 69% total nitrogen reduction projection. The TL3 BioCoir units will be added to the GMP 2013-01 listing for 50% nitrogen reduction based on the sampling conducted during the TL3 field test.

If you have any questions, please Marcia Degen at Marcia.Degen@vdh.virginia.gov or by phone at (804) 387-1883.

Sincerely,

DocuSigned by:

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Lance Gregory, Division Director
Division of Onsite Sewage and Water Services,
Environmental Engineering & Marina Programs

Cc: Marcia Degen, Technical Services Manager
Attachment - Memo