

Colin M. Greene, MD, MPH State Health Commissioner Department of Health
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July 13, 2022

Colin Bishop, Chief Executive Officer colin.bishop@anuainternational.com
Anua
P.O. Box 77457
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VIA ELECTRONIC AND REGULAR MAIL

RE: Addition of Two Units to Treatment Level 3 Approval of Quanics BioCoir

Dear Mr. Bishop:

On June 6, 2022, you notified the Virginia Department of Health (VDH) that two additional models of the Quanics-BioCoir wastewater treatment unit received NSF 40 approval. These two models, Q-ATS-A400-80/20-BC and Q-ATS-A400-2-80/20-BC, are considered proportionally equivalent to the other approved models by NSF International.

As a result, these two models are added to the listing below of BioCoir wastewater treatment unit models listed as "Generally Approved" under 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 (ft³) | Media Loading (gpd/ft³) | 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 |
| Q-ATS-A400-80/20-BC | 3 | 450 | 67 | 6.7 | Anua A400 |
| Q-ATS-A400-2-80/20-BC | 6 | 900 | 134 | 6.7 | Anua A400 |

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The BioCoir treatment unit is a recirculating media filter which is preceded by a septic tank. 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. Please see the original review memo dated May 22, 2020, for a discussion on loading rates and design flows with respect to TL3 testing and NSF testing.

Influent and effluent nitrogen testing was 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. These two new 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:

7/13/2022 | 4:38:13 PM EDT

Lance Gregory, Division Director

Division of Onsite Sewage and Water Services,

Environmental Engineering & Marina Programs

Cc: Marcia Degen, Technical Services Manager