MINNESOTA POLLUTION CONTROL AGENCY

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January 1, 2025

Colin Bishop, CEO
Anua
P.O. Box 77457
Greensboro, NC 27417

RE: Product Registration Renewal – Notice of Proprietary Treatment Product Listing
Description: Sewage Treatment System, Sequencing Batch Reactor (SBR)
Manufacturer: Anua
Product Name: PuraSys SBR Series
Model Number: PS1-4 through PS1-14, 400gpd to 1400gpd
Product Listing: Category A (Residential Sewage)

Dear Colin Bishop:

Thank you for your application for product renewal for the Anua PuraSys SBR Series, which includes the following models: PS1-4, PS1-5, PS1-6, PS1- 7, PS1-8, PS1-9, PS1-10, PS1-11, PS1-12, PS1-13, and PS1-14.

In accordance with Minn. R. ch. 7080 through 7083, the Minnesota Pollution Control Agency (MPCA) has reviewed Anua's submitted materials requesting registration for Category A (residential) treatment product listing of the PuraSys SBR Series. Based on the submitted documentation, the MPCA finds the PuraSys SBR Series is eligible to be registered per Minnesota Rules Chapter 7083.4030 as meeting the following treatment levels:

- **Treatment Level B2** ($cBOD_5$ of 25 mg/L, TSS of 30 mg/L)
- **Treatment Level C** ($cBOD_5$ of 125 mg/L, TSS of 60 mg/L, and Oil & Grease of 25 mg/L)
- **Total Nitrogen** (TN of less than or equal to 20 mg/L)

The PuraSys SBR Series is registered according to the design rated capacities as shown in Table 1.

Subject to this determination, the PuraSys SBR will be placed on the List of Registered Subsurface Sewage Treatment System (SSTS) Products. The product information listed in this Notice of Proprietary Product Listing will be maintained on the MPCA website and may not be altered by the manufacturer without permission from the MPCA.

Table 1. PuraSys SBR Series Models PS1-4 through PS1-14.

Product Name Model	Treatment Process	Design Flow (gpd)	BOD_5 Removed (lbs/day)	Highest Treatment Level	Nutrient Removal*	Important Product Use Information
PuraSys PS1-4	Sequencing Batch Reactor	400	0.7	B2	TN	• Notice of Product Listing o MPCA Letter o Conditions of Registration o Expiration Date • PuraSys SBR Series Manual o Submitted Drawings o Flow Splitting o Known Limitations o Installation o Operation & Maintenance o Owners Information o Regulators Checklist o Service Contract • Management Plan • Operating Permit Template
PuraSys PS1-5	Sequencing Batch Reactor	500	0.875	B2	TN	
PuraSys PS1-6	Sequencing Batch Reactor	600	1.05	B2	TN	
PuraSys PS1-7	Sequencing Batch Reactor	700	1.225	B2	TN	
PuraSys PS1-8	Sequencing Batch Reactor	800	1.4	B2	TN	
PuraSys PS1-9	Sequencing Batch Reactor	900	1.575	B2	TN	
PuraSys PS1-10	Sequencing Batch Reactor	1000	1.75	B2	TN	
PuraSys PS1-11	Sequencing Batch Reactor	1100	1.925	B2	TN	
PuraSys PS1-12	Sequencing Batch Reactor	1200	2.1	B2	TN	
PuraSys PS1-13	Sequencing Batch Reactor	1300	2.275	B2	TN	
PuraSys PS1-14	Sequencing Batch Reactor	1400	2.45	B2	TN	

* Third-party testing showed PuraSys SBR Series effluent achieved Total Nitrogen [TN] level less than or equal to 20 mg/L [mean TN = 18 mg/L TN with 58% removed]; CBOD5 was less than 25 mg/L; TSS was less than 30 mg/L. Total nitrogen removal is highly dependent upon BOD and TKN loading, adequate alkalinity, temperature and toxicity; site specific alkalinity levels in the water supply should be evaluated and homeowners should be well educated in order to achieve optimal total nitrogen reduction.

The registration of products in Minnesota is contingent upon compliance with the following conditions:

1. Products must be used in compliance with the MPCA rules and the plans and design specifications provided. Any deviation from the plans and specifications shall not be permitted unless authorized by National Sanitation Foundation (NSF) and, in writing, by the MPCA for registered use.

2. The manufacturer shall have readily accessible information, specific to a product's registered use in Minnesota, for designers, regulators, installers, system owners, service providers and other interested parties for the following items: a) product manual; b) design instructions; c) installation instructions; d) information regarding operation and maintenance; e) homeowner instructions; and f) list of representatives and manufacturer-certified service providers, if any, as required by Minn. R. 7083.4040 (H).

3. The design flows for the registered PuraSys SBR Series, are 400 gallons per day for the PS1-4 and up to 1400 gpd for model PS1-14 as specified in the submittal documentation and Table 1 of this document.

4. The pretreatment chamber or tank capacity must be sized per Minn. R. 7080.1930. The reactor chamber or tank capacity must be sized per Table 1 in the PuraSys SBR Reference Manual. Sewage tank(s) used in conjunction with the PuraSys SBR Series must be registered for use in Minnesota and included on the MPCA's List of registered SSTS Sewage tanks. The tank(s) and all pipe penetrations, risers, and other connections to the tank shall be watertight.

5. Systems installed using PuraSys SBR Series shall be dosed according to the manufacturer's specifications. Adequate storage capacity shall be provided in the reactor chamber or tank to prevent nuisance high water conditions from occurring. An alarm device is required on all reactor chambers or tanks in the event the pump malfunctions.

6. Each system must be delivered with an installation manual and owner's manual for the PuraSys SBR Series. Each unit must be installed in accordance with the manufacturer's installation manual.

7. This treatment product is a Minnesota-registered product for Type IV systems. Effluent loading rates to the soil, method of distribution, and vertical separation requirements shall meet the minimum requirements contained in Minn. R. 7080.2150 thru 7080.2350. The effluent, following treatment in the PuraSys SBR Series, is required to be uniformly distributed to the soil for final treatment and dispersal.

8. Systems may only be designated as Type IV systems when designed and installed per the drawings submitted as part of initial Application for Product Registration, dated October 4, 2017, and subsequent documents submitted prior to product renewal, including the revised Anua manuals.

9. PuraSys SBR products must meet the following requirements: 1) not exceed the soil loading rates for Type IV systems; and 2) meet all other requirements for Type I mounds, at-grades, and seepage beds. This includes that: 1) each system has at least 12 inches of natural, unsaturated, suitable soil for final treatment and dispersal and; 2) each design will consider contour loading rate for at-grade and mound systems. All mounds shall have at least one (1) foot of clean sand, per Minn. R. 7080.2220, subp. 3.

10. As a Type IV system, the system must be constructed and operated under the required local permits.

11. The level of maintenance required for the PuraSys SBR Series shall be as specified in the products Operation and Maintenance Manual. This includes, but is not limited to, annual maintenance.

12. For systems registered as meeting the requirements for Treatment Level B2, testing for $cBOD_5$ and TSS is required per the local operating permits when reduced sizing is employed.

13. As specified in the Owner's Manual, limitations of the product are identified. The manufacturer is responsible to provide a listing of other known limitations, made available on the company's website or other means.

14. Training shall be provided to MPCA-licensed Subsurface Sewage Treatment Systems practitioners before designing, installing, or providing service to the PuraSys SBR Series as registered for use in Minnesota.

15. During the period of product registration and as part of the renewal process, systems using registered treatment products are subject to an audit by the MPCA.

Please be advised that this registration expires December 31, 2027. Manufacturers desiring to continue product registration beyond this date must obtain MPCA renewal according to the requirements in Minn.R. 7083.4040 (E). If the product has changed or is retested according to the protocol required for registration, renewal shall be based on the most recent test results.

If the MPCA finds the product has changed in any way that may affect performance, it may not be renewed and must meet the requirements for initial registration.

The MPCA is in no way endorsing these products or any advertising and is not responsible for any situation that may result from its use or misuse. The MPCA is not liable for any product failure and these statements are not intended and cannot be relied upon to establish any substantive or procedural rights with the state of Minnesota or the MPCA, either express or implied, that can be enforced in litigation or any administrative proceeding.

If you have any questions, please contact Wendy Chirpich at 507-344-5248 or by email at wendy.chirpich@state.mn.us

Sincerely,

Wendy Chirpich

This document has been electronically signed.

Wendy Chirpich
Environmental Specialist
Municipal Division

WC:lm