

January 21, 2022

Michael Stidham, Vice President  
E-Z Treat Company  
PO Box 176  
Haymarket, VA 20168

**RE: Product Registration Renewal #2 – Notice of Conditional Proprietary Treatment Product Listing**

Description: Fixed media, packer-bed filter system  
Manufacturer: E-Z Treat Company  
Product Name: E-Z Treat™ Re-Circulation Synthetic Sand Filter (With and Without Disinfection)  
Model Numbers: 600 (Max Design Flow up to 600 GPD per pod), 750 (Max Design Flow up to 750 GPD pod), and 1200 (Max Design Flow 1200 GPD per pod)  
Product Listing: Category A (Residential Sewage)

Dear Mr. Stidham:

Thank you for your application for product renewal for E-Z Treat Company's E-Z Treat Re-Circulation Synthetic Sand Filter, which includes the following models:

1. E-Z Treat model #600 with and without Ultraviolet Light Disinfection
2. E-Z Treat model #750 with and without Ultraviolet Light Disinfection
3. E-Z Treat model #1200 with and without Ultraviolet Light Disinfection

This renewal is conditional based on the results of a comprehensive review of E-Z Treat Company's manuals submitted for initial registration of the product. This registration letter may be discontinued at any time between now and the expiration listed below if the MPCA cannot obtain manuals that meet the recommendations from the Technical Advisory Panel to remain in compliance with Minn. R. 7083.4040 (H).

In accordance with Minn. R. Ch. 7080 through 7083, the Minnesota Pollution Control Agency (MPCA) has reviewed E-Z Treat Company's submitted materials requesting registration for Category A (residential) treatment product listing of the E-Z Treat model 600, 750, and 1200. Based on the submitted documentation, the MPCA finds that the E-Z Treat model 600, 750, and 1200 are eligible to be registered per Minn. R. Ch. 7083.4030 as meeting the following treatment levels:

- **Treatment Level A** (cBOD<sub>5</sub> of 15 mg/L, TSS of 15 mg/L, and fecal coliform of 1,000 colonies per 100 ml) with disinfection
- **Treatment Level B** (cBOD<sub>5</sub> of 25 mg/L, TSS of 30 mg/L, and fecal coliform of 10,000 colonies per 100 ml) with disinfection
- **Treatment Level A2** (cBOD<sub>5</sub> of 15 mg/L, TSS of 15 mg/L) without disinfection
- **Treatment Level B2** (cBOD<sub>5</sub> of 25 mg/L, TSS of 30 mg/L) without disinfection
- **Treatment Level C** (cBOD<sub>5</sub> of 125 mg/L, TSS of 60 mg/L, Oil and Grease of 25 mg/L) without disinfection
- **Total Nitrogen** (TN of less than or equal to 20 mg/L)

The E-Z Treat model 600 is registered with a design rated capacity of 600 gallons per day per pod, as shown in Table 1 and Table 2. The E-Z Treat model 750 is registered with a design rated capacity of 750 gallons per day per pod, as shown in Table 1 and Table 2. The E-Z Treat model 1200 is registered with a design rated capacity of 1,200 gallons per day per pod, as shown in Table 1 and Table 2.

Subject to this determination, the E-Z Treat model 600, 750, and 1200 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 by the MPCA.

**Table 1. E-Z Treat Re-Circulation Synthetic Sand Filter, Model 600, 750, and 1200 with E-Z Treat UV 1000 Ultraviolet (UV) Disinfection.**

Product Name Model	Treatment Process	Design Flow (gpd)	BOD <sub>5</sub> Removed (lbs/day)	Highest Treatment Level	Nutrient Removal	Important Product Use Information
E-Z Treat with one (1) E-Z UV Disinfection Unit <b>Model 600</b>	Fixed media, packer-bed filter system	600	0.98	A	TN*	<ul style="list-style-type: none"> <li>• Notice Product Listing                             <ul style="list-style-type: none"> <li>○ MPCA Letter</li> <li>○ Conditions of Registration</li> <li>○ Expiration Date</li> </ul> </li> <li>• E-Z Treat Manual                             <ul style="list-style-type: none"> <li>○ Submitted Drawings</li> <li>○ Flow Splitting</li> <li>○ Known Limitations</li> <li>○ Installation</li> <li>○ Operation and Maintenance</li> <li>○ Owners Information</li> <li>○ Regulators Checklist</li> <li>○ Service Contract</li> </ul> </li> <li>• Management Plan</li> <li>• Operating Permit Template</li> </ul>
E-Z Treat with two (2) E-Z UV Disinfection Units <b>Model 750</b>	Fixed media, packer-bed filter system	750	1.23	A	TN*	
E-Z Treat with two (2) E-Z UV Disinfection Units <b>Model 1200</b>	Fixed media, packer-bed filter system	1,200	1.96	A	TN*	

\* Third-party testing showed E-Z Treat effluent achieved Total Nitrogen [TN] level less than or equal to 20 mg/L [mean TN = 15 mg/L TN with 64 percent removed]; CBOD<sub>5</sub> was less than 10 mg/L; TSS was less than 10 mg/L; Fecal coliform bacteria was less than 1,000 cfu/100mL with the use of UV disinfection device. 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.

**Table 2. E-Z Treat Re-Circulation Synthetic Sand Filter, Model 600, 750, and 1200.**

Product Name Model	Treatment Process	Design Flow (gpd)	BOD <sub>5</sub> Removed (lbs/day)	Highest Treatment Level	Nutrient Removal	Important Product Use Information
E-Z Treat Model 600	Fixed media, packer-bed filter system	600	0.98	A2	TN*	<ul style="list-style-type: none"> <li>• Notice Product Listing                             <ul style="list-style-type: none"> <li>○ MPCA Letter</li> <li>○ Conditions of Registration</li> <li>○ Expiration Date</li> </ul> </li> <li>• E-Z Treat Manual                             <ul style="list-style-type: none"> <li>○ Submitted Drawings</li> <li>○ Flow Splitting</li> <li>○ Known Limitations</li> <li>○ Installation</li> <li>○ Operation and Maintenance</li> <li>○ Owners Information</li> <li>○ Regulators Checklist</li> <li>○ Service Contract</li> </ul> </li> <li>• Management Plan</li> <li>• Operating Permit Template</li> </ul>
E-Z Treat Model 750	Fixed media, packer-bed filter system	750	1.23	A2	TN*	
E-Z Treat Model 1200	Fixed media, packer-bed filter system	1,200	1.96	A2	TN*	

\* Third-party testing showed E-Z Treat effluent achieved Total Nitrogen [TN] level less than or equal to 20 mg/L [mean TN = 15 mg/L TN with 64 percent removed]; CBOD<sub>5</sub> was less than 10 mg/L; TSS was less than 10 mg/L; Fecal coliform bacteria was greater than 10,000 cfu/100mL without the use of the UV disinfection device. Total nitrogen removal is highly dependent upon BOD and TKN loading, adequate alkalinity, temperature and toxicity; site specific alkalinity levels in the source water supply should be evaluated and homeowners should be well educated in order to achieve the 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 the 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. Ch. 7083.4040 (H).
3. The design flows for the registered products per pod for the E-Z Treat Re-Circulation Synthetic Sand Filter are as follows:
  - 600 gallons per day for the E-Z Treat Model #600
  - 750 gallons per day for the E-Z Treat Model #750
  - 1,200 gallons per day for the E-Z Treat Model #1200
4. Septic tank capacity for dwellings shall meet the manufacturer's size requirements consistent with Standard 40 National Sanitation Foundation testing of the product and sewage tank requirements contained in Minn. R. Ch. 7080.1900 through 7080.2020. Sewage tank(s) shall be designed to withstand the pressures to which it will be subject to. Tanks and all pipe penetrations, risers, and other connections to tanks shall be watertight.
5. Systems installed using the E-Z Treat Re-Circulation Synthetic Sand Filter (600, 750, and 1200) shall be equipped with an effluent screen, consistent with the type used during the Standard 40 National Sanitation Foundation (NSF) test of the product. An alarm device is required in the event the effluent screen malfunctions.
6. Each system must be delivered with an installation manual and owner's manual for the E-Z Treat Re-Circulation Synthetic Sand Filter (600, 750, and 1200), and for E-Z Treat UV 1000 disinfection unit(s) used in the system. Each component must be installed in accordance with the manufacturer's installation manual.
7. E-Z Treat Company, along with the Intermediate Designer/Advanced Designer and Installer, are responsible to ensure that proper flow-splitting devices are used in splitting flows to multiple E-Z Treat UV 1000 disinfection units. Flow-splitting devices must meet the following criteria: a) designed specifically and reliably to split wastewater flows; b) accessible for on-going operation and maintenance; c) monitored to determine flow rates; d) adjustable after construction should settlement occur; and e) have infinite or continuous adjustment features.
8. For the E-Z Treat Re-Circulation Synthetic Sand Filter (600, 750, and 1200) that wish to achieve treatment levels A and B shall be equipped with a sufficient number of E-Z Treat UV 1000 disinfection units as follows: 1) 600 will require the use of one E-Z Treat UV 1000 disinfection unit, 2) 750 will require the use of two E-Z Treat UV 1000 disinfection units, and 3) 1200 will require the use of two E-Z Treat UV 1000 disinfection units. Flow to each AXUV disinfection unit shall not exceed the rated capacity to ensure adequate disinfection prior to soil dispersal.

9. All systems shall be designed and operated with (a) suitable alarm device(s) should the E-Z Treat Re-Circulation Synthetic Sand Filter (600, 750, and 1200) or E-Z Treat UV 1000 disinfection unit(s) malfunction.
10. This treatment product is a Minnesota-registered product for Type IV systems. For Treatment Levels A, A2, B, B2 and C, effluent loading rates to the soil, method of distribution, and vertical separation requirements shall meet the minimum requirements contained in Minn. R. Ch. 7080.2150 thru 7080.2350. The effluent, following treatment in the E-Z Treat Re-Circulation Synthetic Sand Filter, is required to be uniformly distributed to the soil for final treatment and dispersal.
11. Systems may only be designated as Type IV systems when designed and installed per the drawings submitted as part of the initial Application for Registration, dated March 7, 2016, and subsequent documents submitted prior to this registration.
12. As a Type IV system, the system must be constructed and operated under the required local permits.
13. The level of maintenance required for the E-Z Treat Re-Circulation Synthetic Sand Filter and E-Z Treat UV 1000 disinfection components shall be as specified in the products Operation and Maintenance Manual. This includes, but is not limited to: 1) initial maintenance three to six months after system start-up; and 2) annual inspections and maintenance. The E-Z Treat UV 1000 disinfection units shall be serviced at six month intervals. The UV lamp shall be replaced at least once every two (2) years to ensure proper disinfection or more often as needed, to achieve the required fecal coliform bacteria treatment level.
14. For systems registered as meeting the requirements for Treatment Levels A or B, testing for fecal coliform bacteria is required per the local operating permits when reduced vertical soil separation is employed.
15. 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.
16. Training shall be provided to MPCA-licensed Subsurface Sewage Treatment System practitioners before designing, installing, or providing service to E-Z Treat Re-Circulation Synthetic Sand Filter and E-Z Treat UV 1000 disinfection devices registered for use in Minnesota.
17. 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.

Mr. Michael Stidham

Page 6

January 21, 2022

**Please be advised that this registration expires December 31, 2024.** Manufacturers desiring to continue product registration beyond this date must obtain MPCA renewal according to the requirements in Minn. R. Ch. 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 which 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 Katie Dowling at 651-757-2301 or by email at [katie.dowling@state.mn.us](mailto:katie.dowling@state.mn.us).

Sincerely,



*This document has been electronically signed.*

Katie Dowling  
Environmental Specialist  
Municipal Division

KD:lm

cc: File