

April 18, 2024

Mr. Mike Catanzaro
Hoot Systems, LLC
2885 Highway 14 East
Lake Charles, LA 70607

RE: Product Registration Renewal – Notice of Proprietary Treatment Product Listing

Description: Sewage Treatment System, Suspended Growth
Manufacturer: Hoot Systems, LLC.
Product Name: Hoot H-Series Hoot Treatment Systems (With and Without Disinfection)
Model Numbers: H-500, H-600, H-750, H-900, H-1000, and H-1200 (Max Design Flow
500 GPD for H-500, 600 GPD for H-600, 750 GPD for H-750, 900 GPD for
H-900, 1000 GPD for H-1000, and 1200 GPD for H-1200)
Product Listing: Category A (Residential Sewage)

Dear Mike Catanzaro:

Thank you for your application for product renewal for the Hoot Systems H-Series Treatment System, which includes the following models: H-500, H-600, H-750, H-900, H-1000 and H-1200 (with and without Ultraviolet Light Disinfection).

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

- **Treatment Level A** (cBOD₅ of 15 mg/L, TSS of 15 mg/L, and fecal coliform of 1000 colonies per 100 ml) with disinfection
- **Treatment Level B** (cBOD₅ of 25 mg/L, TSS of 30 mg/L, and fecal coliform of 10,000 colonies per 100 ml) without disinfection
- **Treatment Level A2** (cBOD₅ of 15 mg/L, TSS of 15 mg/L)
- **Treatment Level B2** (cBOD₅ of 25 mg/L, TSS of 30 mg/L)
- **Treatment Level C** (cBOD₅ of 125 mg/L, TSS of 60 mg/L, and Oil & Grease of 25 mg/L)

The Hoot H- Series Treatment Systems are registered with a design rated capacity of 500 to 1200 gallons per day per model, as shown in Table 1 and Table 2.

Subject to this determination, the Hoot H-Series Treatment Systems, including models H-500, H-600, H-750, H-900, H-1000, and H-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. Hoot H-Series Treatment System with Salcor Ultraviolet (UV) Disinfection.

Product Name Model	Treatment Process	Design Flow (gpd)	BOD ₅ Removed (lbs/day)	Highest Treatment Level	Important Product Use Information
Hoot H-500 with one (1) Salcor 3G UV Disinfection Unit Hoot H-500	Suspended Growth	500	0.82	A	<ul style="list-style-type: none"> • Notice of Product Listing <ul style="list-style-type: none"> ○ MPCA Letter ○ Conditions of Registration ○ Expiration Date • Hoot Systems Manual <ul style="list-style-type: none"> ○ Submitted Drawings ○ Flow Splitting ○ Known Limitations ○ Installation ○ Operation & Maintenance ○ Owners Information ○ Regulators Checklist ○ Service Contract • Management Plan • Operating Permit Template
Hoot H-600 with one (1) Salcor 3G UV Disinfection Unit Hoot H-600	Suspended Growth	600	0.98	A	
Hoot H-750 with two (2) Salcor 3G UV Disinfection Units, in parallel Hoot H-750	Suspended Growth	750	1.23	A	
Hoot H-900 with two (2) Salcor 3G UV Disinfection Units, in parallel Hoot H-900	Suspended Growth	900	1.47	A	
Hoot H-1000 with two (2) Salcor 3G UV Disinfection Units, in parallel Hoot H-1000	Suspended Growth	1000	1.63	A	
Hoot H-1200 with two (2) Salcor 3G UV Disinfection Units, in parallel Hoot H-1200	Suspended Growth	1200	1.96	A	

Table 2. Hoot H-Series Hoot Treatment System.

Product Name Model	Treatment Process	Design Flow (gpd)	BOD ₅ Removed (lbs/day)	Highest Treatment Level	Important Product Use Information
Hoot H-500	Suspended Growth	500	0.82	B	<ul style="list-style-type: none"> • Notice of Product Listing <ul style="list-style-type: none"> ○ MPCA Letter ○ Conditions of Registration ○ Expiration Date • Hoot Systems Manual <ul style="list-style-type: none"> ○ Submitted Drawings ○ Flow Splitting ○ Known Limitations ○ Installation ○ Operation & Maintenance ○ Owners Information ○ Regulators Checklist ○ Service Contract • Management Plan • Operating Permit Template
Hoot H-600	Suspended Growth	600	0.98	B	
Hoot H-750	Suspended Growth	750	1.23	B	
Hoot H-900	Suspended Growth	900	1.47	B	
Hoot H-1000	Suspended Growth	1000	1.63	B	
Hoot H-1200	Suspended Growth	1200	1.96	B	

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

1. Products must be used in compliance with 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) home-owner instructions; and f) list of manufacturer-certified service providers, if any, as required by Minn. R. ch. 7083.4040 (H).

3. The design flows for the registered products for the Hoot H-Series Treatment Systems are as follows:
 - 500 gallons per day for the H-500
 - 600 gallons per day for the H-600
 - 750 gallons per day for the H-750
 - 900 gallons per day for the H-900
 - 1000 gallons per day for the H-1000
 - 1200 gallons per day for the H-1200
4. Septic/trash tank capacity for dwellings shall meet the manufacturer's size requirements consistent with Standard 40 National Sanitation Foundation (NSF) 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 the tank shall be watertight.
5. The Hoot H-900 and H-1200 are registered to be used with specific sewage tanks fabricated by Wieser Precast Steps Doric Vault Company, Stewartville, Minnesota.
6. Each system must be delivered with an installation manual and owner's manual for both the Hoot H-Series Treatment Systems (Hoot H-500, Hoot H-600, Hoot H-750, Hoot H-900, Hoot H-1000, and Hoot H-1200) and for Salcor 3G UV disinfection unit(s) used in the system. Each component must be installed in accordance with the manufacturer's installation manual.
7. Hoot Systems, LLC., along with the Intermediate/Advanced Designer and Installer, are responsible to ensure that proper flow splitting devices are used in splitting flows to Salcor 3G UV 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 Hoot H-Series Treatment Systems (Hoot H-500, Hoot H-600, Hoot H-750, Hoot H-900, Hoot H-1000, and Hoot H-1200), each Hoot Treatment System shall be equipped with a sufficient number of Salcor 3G UV disinfection units to achieve Treatment Level A as follows: 1) Hoot H-500 will require the use of one Salcor 3G UV disinfection unit; 2) Hoot H-600 will require the use of one Salcor 3G UV disinfection unit; 3) Hoot H-750 will require the use of two Salcor 3G UV disinfection units in parallel; 4) Hoot H-900 will require the use of two Salcor 3G UV disinfection units in parallel; 5) H-1000 will require the use of two Salcor 3G UV disinfection units in parallel; and 6) H-1200 will require the use of two Salcor 3G UV disinfection units in parallel. Flow to each Salcor UV 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 either, or both, the Hoot H-Series Treatment Systems (Hoot H-500, Hoot H-600, Hoot H-750, H-900, Hoot H-1000, and Hoot H-1200) or Salcor 3G UV disinfection unit(s) malfunction.
10. 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. ch. 7080.2150 thru 7080.2350. The effluent, following treatment in the Hoot H-Series Treatment Systems, 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 with two separate initial Applications for Product Registration, dated January 21, 2009 and June 12, 2014, 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 Hoot H-Series Treatment Systems and Salcor 3G UV disinfection components shall be as specified in the products Operation and Maintenance Manual. This includes, but is not limited to, maintenance every six months. Salcor 3G UV disinfection units shall be serviced at six-month intervals. The Salcor 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 Declaration of Warnings contained in the Installer and Homeowners Manuals, backwash from water softeners and other unsuitable wastes must not be discharged to the Hoot H-Series (Hoot H-500, Hoot H-600, Hoot H-750, Hoot H-900, Hoot H-1000 and Hoot H-1200) treatment systems. 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 Hoot H-Series (Hoot H-500, Hoot H-600, Hoot H-750, HootH-900, Hoot H-1000, and Hoot H-1200) treatment systems and to Salcor 3G UV 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.

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Please be advised that this registration expires December 31, 2026. 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 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