

**WAC 246-272A-0110 Proprietary treatment products—Certification and registration.**

(1) Manufacturers shall register their proprietary treatment products with the department before the local health officer may permit their use.

(2) To qualify for product registration, manufacturers desiring to sell or distribute proprietary treatment products in Washington state shall:

(a) Verify product performance through testing using the testing protocol established in Table I and register their product with the department using the process described in WAC 246-272-0120;

(b) Report test results of influent and effluent sampling obtained throughout the testing period (including normal and stress loading phases) for evaluation of constituent reduction according to Table II;

(c) Demonstrate product performance according to Table III. All (~~thirty-day~~) 30-day averages and geometric means obtained throughout the test period must meet the identified threshold values to qualify for registration at that threshold level; and

(d) For registration at levels A, B, and C verify bacteriological reduction according to WAC 246-272A-0130.

(3) Manufacturers verifying product performance through testing according to the following standards or protocols shall have product testing conducted by a testing facility accredited by ANSI:

(a) ANSI/NSF Standard 40—Residential Wastewater Treatment Systems;

(b) NSF Standard 41: Non-Liquid Saturated Treatment Systems;

(c) NSF Protocol P157 Electrical Incinerating Toilets - Health and Sanitation; or

(d) Protocol for bacteriological reduction described in WAC 246-272A-0130.

(4) Manufacturers verifying product performance through testing according to the following standards or protocols shall have product testing conducted by a testing facility meeting the requirements established by the Testing Organization and Verification Organization, consistent with the test protocol and plan:

(a) EPA/NSF—Protocol for the Verification of Wastewater Treatment Technologies; or

(b) EPA Environmental Technology Verification Program protocol for the Verification of Residential Wastewater Treatment Technologies for Nutrient Reduction.

(5) Treatment levels used in these rules are not intended to be applied as field compliance standards. Their intended use is for establishing treatment product performance in a product testing setting under established protocols by qualified testing entities.

(6) Manufacturers may submit a written request to substitute components of a registered product's construction in cases of supply chain shortage or similar manufacturing disruptions impacting installations, operation, or maintenance. The substitution request must include a report stamped, signed, and dated by a professional engineer demonstrating the substituted component will not negatively impact performance or diminish the effect of the treatment, operation, and

maintenance of the original registered product. If approved, substitution is authorized until rescinded by the department.

**TABLE I**

<b>Testing Requirements for Proprietary Treatment Products</b>	
<b>Treatment Component/Sequence Category</b>	<b>Required Testing Protocol</b>
<b>Category 1</b> Designed to treat sewage with strength typical of a residential source when septic tank effluent is anticipated to be equal to or less than treatment level E.	ANSI/NSF 40— Residential Wastewater Treatment Systems (protocols dated between July 1996 and the effective date of these rules)
<b>Category 2</b> Designed to treat high-strength sewage when septic tank effluent is anticipated to be greater than treatment level E.  (Such as at restaurants, grocery stores, mini-marts, group homes, medical clinics, residences, etc.)	EPA/NSF Protocol for the Verification of Wastewater Treatment Technologies/ EPA Environmental Technology Verification (April 2001)
<b>Category 3</b> Black water component of residential sewage (such as composting and incinerating toilets).	NSF/ANSI Standard 41: Non-Liquid Saturated Treatment Systems (September 1999)  NSF Protocol P157 Electrical Incinerating Toilets - Health and Sanitation (April 2000)
<b>Total Nitrogen Reduction in Categories 1 &amp; 2 (Above)</b>	Protocol for the Verification of Residential Wastewater Treatment Technologies for Nutrient Reduction/EPA Environmental Technology Verification Program (November, 2000)

**TABLE II**

<b>Test Results Reporting Requirements for Proprietary Treatment Products</b>	
<b>Treatment Component/Sequence Category</b>	<b>Testing Results Reported</b>
<b>Category 1</b> Designed to treat sewage with strength typical of a residential source when septic tank effluent is anticipated to be equal to or less than treatment level E.	Report test results of influent and effluent sampling obtained throughout the testing period for evaluation of constituent reduction for the parameters: CBOD <sub>5</sub> , and TSS:

Test Results Reporting Requirements for Proprietary Treatment Products	
	<input type="checkbox"/> Average <span style="float: right;"><input type="checkbox"/> Standard Deviation</span> <input type="checkbox"/> Minimum <span style="float: right;"><input type="checkbox"/> Maximum</span> <input type="checkbox"/> Median <span style="float: right;"><input type="checkbox"/> Interquartile Range</span> <input type="checkbox"/> 30-day Average (for each month) For bacteriological reduction performance, report fecal coliform test results of influent and effluent sampling by geometric mean from samples drawn within <del>((thirty-day))</del> 30-day or monthly calendar periods, obtained from a minimum of three samples per week throughout the testing period. See WAC 246-272A-0130. Test report must also include the individual results of all samples drawn throughout the test period.
<b>Category 2</b> Designed to treat high-strength sewage when septic tank effluent is anticipated to be greater than treatment level E.  (Such as at restaurants, grocery stores, mini-marts, group homes, medical clinics, residences, etc.)	Report all individual test results and full test average values of influent and effluent sampling obtained throughout the testing period for: CBOD <sub>5</sub> , TSS and O&G. Establish the treatment capacity of the product tested in pounds per day for CBOD <sub>5</sub> .
<b>Category 3</b> Black water component of residential sewage (such as composting and incinerating toilets).	Report test results on all required performance criteria according to the format prescribed in the NSF test protocol described in Table I.
<b>Total Nitrogen Reduction in Categories 1 &amp; 2 (Above)</b>	Report test results on all required performance criteria according to the format prescribed in the test protocol described in Table I.

**TABLE III**

Product Performance Requirements for Proprietary Treatment Products						
Treatment Component/Sequence Category	Product Performance Requirements					
<b>Category 1</b> Designed to treat sewage with strength typical of a residential source when septic tank effluent is anticipated to be equal to or less than treatment level E.	<b>Treatment System Performance Testing Levels</b>					
	<b>Level</b>	<b>Parameters</b>				
		<b>CBOD<sub>5</sub></b>	<b>TSS</b>	<b>O&amp;G</b>	<b>FC</b>	<b>TN</b>
	<b>A</b>	10 mg/L	10 mg/L	—	200/100 ml	—
	<b>B</b>	15 mg/L	15 mg/L	—	1,000/100 ml	—
	<b>C</b>	25 mg/L	30 mg/L	—	50,000/100 ml	—
	<b>D</b>	25 mg/L	30 mg/L	—	—	—
	<b>E</b>	125 mg/L	80 mg/L	20 mg/L	—	—
<b>N</b>	—	—	—	—	20 mg/L	
	Values for Levels A - D are 30-day values (averages for CBOD <sub>5</sub> , TSS, and geometric mean for FC.) All 30-day averages throughout the test period must meet these values in order to be registered at these levels. Values for Levels E and N are derived from full test averages.					
<b>Category 2</b> Designed to treat high-strength sewage when septic tank effluent is anticipated to be greater than treatment level E.	All of the following requirements must be met:					

<b>Product Performance Requirements for Proprietary Treatment Products</b>	
<b>Treatment Component/Sequence Category</b>	<b>Product Performance Requirements</b>
(Such as at restaurants, grocery stores, mini-marts, group homes, medical clinics, residences, etc.)	(1) All full test averages must meet Level E; and (2) Establish the treatment capacity of the product tested in pounds per day for CBOD <sub>5</sub> .
<b>Category 3</b> Black water component of residential sewage (such as composting and incinerating toilets).	Test results must meet the performance requirements established in the NSF test protocol.
<b>Total Nitrogen Reduction in Categories 1 &amp; 2 (Above)</b>	Test results must establish product performance effluent quality meeting Level N, when presented as the full test average.