WAC 246-272A-0110 Proprietary treatment products—Eligibility for registration. (1) Manufacturers shall register a proprietary treatment product with the department using the process described in WAC 246-272A-0120 before a local health officer may permit use of the product.

(2) To be eligible 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 of this section;

(b) Report product 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 the requirements in Table II of this section;

(c) Demonstrate product performance according to the requirements in Table III of this section. All 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) Verify bacteriological reduction according to WAC 246-272A-0130 for product registration utilizing bacterial levels BL1, BL2, and BL3.

(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) NSF/ANSI 40: Residential Wastewater Treatment Systems;

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

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

(d) NSF/ANSI 245: Residential Wastewater Treatment Systems - Nitrogen Reduction; or

(e) NSF/ANSI 385: Residential Wastewater Treatment Systems - Disinfection Mechanics for Bacteriological Reduction described in WAC 246-272A-0130.

(4) Manufacturers verifying product performance through testing according to EPA Method 1664, Revision B and using a wastewater laboratory certified by the Washington department of ecology shall provide supporting information, including flow data, and influent and effluent quality sampling results from a minimum of three installations with similar design loading to demonstrate product performance to Category 2 standards.

(5) Treatment levels established in Table III of this section are intended to establish treatment product performance in a product testing setting under established protocols by qualified testing entities. Field compliance standards for proprietary treatment products shall follow the requirements in WAC 246-272A-0120(5).

(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

Testing Requirements for Proprietary Treatment Products	
Treatment Component/Sequence Category	**Required Testing Protocol**
Category 1 Designed to treat septic tank effluent anticipated to be equal to or less than treatment level E.	NSF/ANSI 40—Residential Wastewater Treatment Systems (versions dated between January 2009 and May 31, 2021)
Category 2 Designed to treat effluent or sewage with sewage quality parameters anticipated to be greater than treatment level E. (Such as at restaurants, grocery stores, mini-marts, group homes, medical clinics, residences, etc.)	EPA Method 1664, Revision B (February 2010) and NSF/ANSI 40—Residential Wastewater Treatment Systems (versions dated between January 2009 and May 31, 2021)
Category 3 Black water component of residential sewage (such as composting* and incinerating** toilets).	NSF/ANSI 41: Non-Liquid Saturated Treatment Systems (Versions dated between February 2011 and May 31, 2021) **NSF Protocol P157 Electrical Incinerating Toilets - Health and Sanitation (April 2000)
Total Nitrogen Reduction in Categories 1 & 2 (Above)	NSF/ANSI 245: Residential Wastewater Treatment Systems - Nitrogen Reduction (Versions dated between January 2018 and May 31, 2021)

Table II

Test Results Reporting Requirements for Proprietary Treatment Products	
Treatment Component/Sequence Category	**Testing Results Reported**
Category 1 Designed to treat septic tank effluent anticipated to be equal to or less than treatment level E.	Report the following test results of influent and effluent sampling obtained throughout the testing period for evaluation of reduction of $CBOD_5$[2], and TSS: □ Average □ Standard Deviation □ Minimum □ Maximum □ Median □ Interquartile Range □ 30-day Average (for each month) For evaluation of bacteriological reduction performance. Report complete treatment component sequence testing as described in Table III, Category 1. For evaluation of performance meeting treatment level BL1: (1) Report fecal coliform test results of influent and effluent sampling by geometric mean from samples drawn within 30-day or monthly calendar periods, obtained from a minimum of three samples per week throughout the testing period. See WAC 246-272A-0130. (2) Report complete testing results for supplemental bacteriological reduction technology[1] when the required treatment levels for fecal coliform in Table III, Category 1 are not met by the primary proprietary treatment product. For evaluation of performance meeting treatment level BL2 or BL3: (1) Report fecal coliform test results of influent and effluent sampling by geometric mean from samples drawn within 30-day or monthly calendar periods, obtained from a minimum of three samples per week throughout the testing period as described in WAC 246-272A-0130; or (2) Report complete testing results for supplemental bacteriological reduction technology[1] when the required treatment levels for fecal coliform in Table III, Category 1 are not met by the primary proprietary treatment product. For all options, test report must also include the individual results of all samples drawn throughout the test period.

Test Results Reporting Requirements for Proprietary Treatment Products	
Category 2 Designed to treat effluent or sewage with sewage quality parameters anticipated to be greater than treatment level E. (Such as at restaurants, grocery stores, mini-marts, group homes, medical clinics, atypical residences, etc.)	Report all individual test results and full test average values of influent and effluent sampling obtained throughout the testing period for the evaluation of reduction of: $CBOD_5$, TSS and O&G. Establish the treatment capacity of the product tested in pounds per day for $CBOD_5$.
Category 3 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.
Total Nitrogen Reduction in Categories 1 & 2 (Above)	Report test results on all required performance criteria according to the format prescribed in the test protocol described in Table I.

[1] Test results for BOD_5 may be submitted in lieu of test results for $CBOD_5$. In these cases numerical values for $CBOD_5$ will be determined using the following formula: ($BOD_5 \times 0.83 = CBOD_5$).

[2] Supplemental bacteriological reduction technology must be tested for influent/effluent fecal coliform or *E. coli* per WAC 246-272A-0130 (bacteriological reduction testing protocol). Supplemental fecal coliform or *E. coli* reducing technologies will be rated for log base 10 removal of fecal coliform or *E. coli*. The lowest 30-day geometric mean will be used to rate reduction level. The highest monthly geometric mean for treatment technology fecal coliform or *E. coli* reduction will be used as the baseline value for review.

Table III

Product Performance Requirements for Proprietary Treatment Products							
Treatment Component/Sequence Category	**Product Performance Requirements**						
Category 1 Designed to treat effluent anticipated to be equal to or less than treatment level E.	**Treatment System Performance Testing Levels**						
	Level	**Parameters**					
		$CBOD_5$ mg/L	**TSS mg/L**	**O&G mg/L**	**FC cfu/100 mL**	**TN mg/L**	***E. coli* cfu/100 mL**
	A	10	10	—	—	—	—
	B	15	15	—	—	—	—
	C	25	30	—	—	—	—
	BL1			—	200	—	126
	BL2	—	—	—	1,000	—	—
	BL3	—	—	—	50,000	—	—
	E	228	80	20	—	—	—
	N	—	—	—	—	30 (or 50% reduction based on mass loading as required in WAC 246-272A-0320)	—
	Values for Levels A - C are 30-day values (averages for $CBOD_5$, 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.						
Category 2 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: (1) All full test averages must meet Level E; and (2) Establish the treatment capacity of the product tested in pounds per day for $CBOD_5$.						

Product Performance Requirements for Proprietary Treatment Products	
Treatment Component/Sequence Category	**Product Performance Requirements**
(Such as at restaurants, grocery stores, mini-marts, group homes, medical clinics, residences, etc.)	
Category 3 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.
Total Nitrogen Reduction in Categories 1 & 2 (Above)	Test results must establish product performance effluent quality meeting Level N, when presented as the full test average.

[Statutory Authority: RCW 43.20.50 [43.20.050]. WSR 25-06-036, s 246-272A-0110, filed 2/26/25, effective 4/1/25. Statutory Authority: RCW 43.20.050(3), 43.20.065, chapters 70A.105 and 70A.110 RCW. WSR 24-06-046, § 246-272A-0110, filed 3/1/24, effective 4/1/24. Statutory Authority: RCW 43.20.050. WSR 05-15-119, § 246-272A-0110, filed 7/18/05, effective 9/15/05.]