PROPOSED RULE MAKING

CR-102 (June 2004)
(Implements RCW 34.05.320)
Do **NOT** use for expedited rule making

Agency: State Board of Health

☒ **Preproposal Statement of Inquiry was filed as WSR** 06-06-051 **; or**
☐ **Expedited Rule Making--Proposed notice was filed as WSR _ ; or**
☐ **Proposal is exempt under RCW 34.05.310(4).**

☒ **Original Notice**
☐ **Supplemental Notice to WSR**
☐ **Continuance of WSR**

Title of rule and other identifying information: (Describe Subject)
Chapter 246-272C WAC - On-site Sewage System Tanks

Hearing location(s): Washington State Capital Campus
John A Cherberg Building
Senate Hearing Rm 3

Date: 10/14/2009 Time: 1:30 p.m.

Date of intended adoption: 10/14/2009
(Note: This is **NOT** the **effective** date)

Submit written comments to:
Name: Melissa McEachron
Address: Department of Health
PO Box 47824
Olympia, WA 98504-7824

Website: http://www3.doh.wa.gov/policyreview/
fax 360.236.2257 by (date) 10/07/2009

Assistance for persons with disabilities: Contact
Desiree Robinson by 10/07/2009
TTY (800) 833-6388 or () 711

Purpose of the proposal and its anticipated effects, including any changes in existing rules:
The proposed rule establishes sewage tank design and construction requirements; establishes the review and approval process; and creates a prefabricated sewage tank registry. This proposed rule protects public health by making certain the Department of Health reviews and approves the sewage tank design and construction plan before the tank is used as part of an on-site sewage system design.

Reasons supporting proposal:
Chapter 246-272A WAC and chapter 246-272B WAC require that the Department of Health review and approve sewage tanks. Establishing a consistent approach with understandable requirements reduces the number of poorly designed and constructed sewage tanks, provides a level-playing-field among manufacturers, and consolidates approved prefabricated sewage tank models and sizes in one registry.

Statutory authority for adoption:
RCW 43.20.050(2) & (3)

Statute being implemented:
RCW 43.20.050(2) & (3)

Is rule necessary because of a:

Federal Law?	☐ Yes	☒ No
Federal Court Decision?	☐ Yes	☒ No
State Court Decision?	☐ Yes	☒ No

If yes, CITATION:

DATE 09/02/09

NAME (type or print)
Craig McLaughlin

SIGNATURE

TITLE
Executive Director

CODE REVISER USE ONLY

OFFICE OF THE CODE REVISER
STATE OF WASHINGTON
FILED

DATE: September 02, 2009
TIME: 11:40 AM

WSR 09-18-123

(COMPLETE REVERSE SIDE)

Agency comments or recommendations, if any, as to statutory language, implementation, enforcement, and fiscal matters:

None

Name of proponent: (person or organization) State Board of Health

☐ Private
☐ Public
☒ Governmental

Name of agency personnel responsible for:

	Name	Office Location	Phone
Drafting.....	Melissa McEachron	111 Israel Rd SE, Tumwater, WA 98501	360.236.3265
Implementation....	Denise Lahmann	111 Israel Rd SE, Tumwater, WA 98501	360.236.3348
Enforcement.....	Stuart Glasoe	111 Israel Rd SE, Tumwater, WA 98501	360.236.3246

Has a small business economic impact statement been prepared under chapter 19.85 RCW?

☐ Yes. Attach copy of small business economic impact statement.

A copy of the statement may be obtained by contacting:
Name:
Address:

phone
fax
e-mail

☒ No. Explain why no statement was prepared.
A small business economic impact statement was not prepared. The proposed rule would not impose more than minor costs on businesses in an industry.

Is a cost-benefit analysis required under RCW 34.05.328?

☒ Yes A preliminary cost-benefit analysis may be obtained by contacting:
Name: Melissa McEachron
Address: Department of Health
PO Box 47824
Olympia, WA 98504-7824

phone 360.236.3265
fax 360.236-2257
e-mail melissa.mceachron@doh.wa.gov

☐ No: Please explain:

Chapter 246-272C WAC

ON-SITE SEWAGE SYSTEM TANKS

PURPOSE AND ADMINISTRATION

NEW SECTION

WAC 246-272C-0001 Authority, purpose, and objectives. (1) **Purpose.** The purpose of this chapter is to protect public health and safety by assuring proper design and construction of all tanks used in on-site sewage systems. Proper sewage tank design and construction will help prevent:

(a) Surface or ground water leaking into tanks and adversely impacting the treatment and dispersal functions of system components; and

(b) Sewage from tanks leaking into the soil and adversely impacting ground water or surface water, or causing sewage to surface on the ground.

(2) **Objectives.** This chapter establishes requirements and provides measures to achieve effective long-term sewage treatment and limit the discharge of contaminants to waters of the state. The objectives include:

(a) Establishing design and construction standards;

(b) Requiring department review and approval of design and construction plans for prefabricated tanks and cast-in-place tanks; and

(c) Creating a process to register prefabricated tank sizes and models built from approved design and construction plans.

NEW SECTION

WAC 246-272C-0005 Administration. The department shall administer this chapter under the authority and requirements of chapter 43.70 RCW. The local health officers shall administer

portions of this chapter related to on-site sewage systems with design flows of less than three thousand five hundred gallons per day, as described in chapter 70.05 RCW.

NEW SECTION

WAC 246-272C-0010 Applicability and relationship to other rules. (1) This chapter applies to all prefabricated tanks and all cast-in-place tanks. This chapter establishes sewage tank design and construction requirements, plan review and approval requirements, and prefabricated tank registration requirements.

(2) This chapter contains specific requirements for:

(a) Manufacturers of prefabricated tanks and builders of cast-in-place tanks;

(b) Persons designing sewage tanks;

(c) The department for reviewing, registering, and approving sewage tank design and construction plans;

(d) Persons installing sewage tanks; and

(e) The local health officer and the department for approving on-site sewage system designs, plans, specifications, and installations under chapters 246-272A and 246-272B WAC.

(3) This chapter does not contain all requirements for on-site sewage systems. Additional requirements for on-site sewage systems, including maintenance requirements, are found in chapters 246-272A and 246-272B WAC.

(4) This chapter does not apply to:

(a) Facilities regulated by the department of ecology;

(b) Reclaimed water systems as described in chapter 90.46 RCW;

(c) Tanks used to store municipal sewage sludge regulated as biosolids under chapter 173-308 WAC; or

(d) Geomembrane containment vessels for public domain treatment technologies. An example of this excluded technology is PVC containment vessels for public domain packed bed filters.

NEW SECTION

WAC 246-272C-0020 Definitions. (1) **"AASHTO"** means American Association of State and Highway Transportation Officials.

(2) **"Approved"** means a written statement of acceptability issued by the department of health or the local health officer.

(3) **"Baffle"** means a device placed in a sewage tank for multiple functions, including dissipating energy, directing solids, retaining solids, and drawing liquid off at a specific depth. A baffle is not an intercompartmental wall.

(4) **"Cast-in-place tank"** means a sewage tank specifically designed for and constructed at the location where it will be used.

(5) **"Department"** means the Washington state department of health.

(6) **"Designer"** means a person who matches site and soil characteristics with appropriate on-site sewage technology. Throughout this chapter this term applies to on-site wastewater treatment system designers licensed under chapter 18.210 RCW.

(7) **"Design engineer"** as used in this chapter, means a professional engineer who is experienced and qualified in the analysis and design of on-site wastewater treatment systems or wastewater treatment system components, and is either licensed in Washington in accordance with chapter 18.43 RCW or is licensed in another state and an exception specified in RCW 18.43.130 applies. If the sewage tank is considered a "significant structure," as defined in chapter 18.43 RCW, the design engineer shall be licensed as a structural engineer unless an exception specified in RCW 18.43.040 applies.

(8) **"Effluent"** means liquid discharged from a sewage tank or other on-site sewage system component.

(9) **"Grey water"** means domestic type flows from bathtubs, showers, bathroom sinks, washing machines, dishwashers, and kitchen or utility sinks. Grey water does not include flow from a toilet or urinal.

(10) **"Grease interceptor tank"** means a watertight tank similar in design to a septic tank receiving grey water that may contain grease, such as from food service establishments. The interceptor tank is designed and constructed to permit adequate separation of grease from the rest of the sewage prior to discharge into an approved sewage treatment and disposal or dispersal system.

(11) **"Holding tank"** means a sewage tank that is a component of an on-site sewage system designed to receive and temporarily store sewage from one or more facilities or dwellings for removal, dispersal, and ultimate disposal of the sewage at another location.

(12) **"Holding tank sewage system"** means an on-site sewage system that uses a holding tank, the services of a septic pumper, and off-site treatment and disposal of the sewage generated.

(13) **"Installer"** means a person approved by the local health officer to install on-site sewage systems or components, or as defined in chapter 246-272B WAC.

(14) **"Local health officer"** means the individual having been appointed under chapter 70.05 RCW as the health officer for the local health department, or having been appointed under chapter 70.08 RCW as the director of public health of a combined city-county health department, or his or her designee appointed by the local board of health.

(15) **"On-site sewage system"** means an integrated system of components, located on or nearby the property it serves, that conveys, stores, treats, or provides subsurface soil treatment and dispersal of sewage. It consists of a collection system, a treatment component or treatment sequence, and a soil dispersal component. An on-site sewage system also refers to a holding tank

sewage system or other system that does not have a soil dispersal component.

(16) **"Person"** means any individual, corporation, company, association, society, firm, partnership, joint stock company, or any governmental agency, or the authorized agents of these entities.

(17) **"Prefabricated tank"** means a sewage tank that is manufactured off-site and delivered to the site for installation.

(18) **"Pump tank"** means a tank that contains pumping or dosing equipment.

(19) **"Septage"** means the mixture of solid wastes, scum, sludge, and liquids pumped from within septic tanks, pump chambers, holding tanks, and other on-site sewage system components.

(20) **"Septic pumper"** means a person approved by the local health officer to remove and transport sewage or septage from on-site sewage systems.

(21) **"Septic tank"** means a watertight treatment receptacle receiving the discharge of sewage from a building sewer or sewers; designed and constructed to permit separation of settleable and floating solids from the liquid, and detention and anaerobic digestion of the organic matter, prior to discharge of the liquid.

(22) **"Sewage"** means any urine, feces, and the water carrying human wastes, including kitchen, bath, and laundry wastes from residences, buildings, industrial establishments, or other places.

(23) **"Sewage tank"** means a watertight prefabricated or cast-in-place septic tank, pump tank, holding tank, grease interceptor tank, recirculating filter tank, a tank used with a proprietary product, and any other tank used in an on-site sewage system. This term also includes tanks used in a septic tank effluent pump or vacuum collection/transmission system for an on-site sewage system.

(24) **"Trash tank"** means a type of sewage tank that removes material from sewage that microorganisms cannot degrade before the sewage enters a chamber where decomposition occurs.

(25) **"Watertight"** means liquids are prevented from entering or escaping except through designed openings such as inlets, outlets, intercompartmental wall fittings or baffles.

SEWAGE TANK APPROVALS AND REGISTERED LIST REQUIREMENTS

NEW SECTION

WAC 246-272C-0110 General requirements. (1) The department shall review and approve all sewage tank design and construction plans.

(2) Prefabricated tank models and sizes built from approved design and construction plans must be registered with the department.

(3) Cast-in-place tanks are project specific and must be constructed using a design and construction plan approved by the department.

(4) Designers and design engineers shall specify only prefabricated tanks registered with the department or a cast-in-place tank approved by the department in their on-site sewage system designs, plans, and specifications.

(5) Installers shall install only prefabricated tanks registered with the department or construct only cast-in-place tanks that the department has reviewed and approved.

(6) A manufacturer or agent shall sell only prefabricated tanks registered with the department in Washington.

(7) Local health officers and the department shall approve only on-site sewage system designs and installations specifying either a prefabricated tank registered with the department or a cast-in-place tank approved by the department.

NEW SECTION

WAC 246-272C-0120 Application process for sewage tank design and construction plan approval. (1) An applicant for sewage tank design and construction plan approval shall apply to the department by submitting a completed application in the format required by the department. For required sewage tank application information, see WAC 246-272C-0125.

(2) When the department receives an application, the department shall:

(a) Review applications in the order received;

(b) Verify the application is complete and includes any applicable fee;

(c) Return any incomplete application;

(d) Provide the applicant with an approximate date the department expects to complete the review; and

(e) Review and evaluate the design and construction plans and all information submitted to determine whether all applicable requirements are met.

(3) If the department determines the sewage tank design and construction plan meets all applicable requirements, the department shall:

(a) Approve the application and the sewage tank design and construction plan;

(b) Notify the applicant of the department's decision in writing;

(c) Bill the applicant for any additional fee owed beyond the base fee; and

(d) Upon receipt of payment of any additional fees:

(i) Place the specific prefabricated tank model number, size, and manufacturer information on the sewage tank registered list; or

(ii) Authorize construction of the cast-in-place tanks.

(4) If the department determines the tank design and construction plans do not meet all applicable requirements, the department shall:

(a) Deny the application; and

(b) Notify the applicant of the department's decision in writing stating the specific reasons for the denial.

NEW SECTION

WAC 246-272C-0125 Required application information. (1) **Prefabricated tanks:** The application for prefabricated tank design and construction approval must include the information listed in Table 1.

Table 1--Required Application Information

(a) Manufacturer information:	(i) Manufacturer's name; (ii) Mailing address; (iii) Street address; (iv) Phone number; and (v) E-mail address.
(b) Manufacturer's authorized contact information:	(i) Name of the manufacturer's authorized contact; (ii) Mailing address; (iii) Street address; (iv) Phone number; and (v) E-mail address.
(c) If there is an agent, manufacturer's agent information:	(i) Name of the manufacturer's agent; (ii) Mailing address; (iii) Street address; (iv) Phone number; (v) E-mail address; and (vi) A signed and dated statement from the agent verifying agent status. The statement must include the following: "I certify that I represent (insert manufacturing company name) and I am authorized to prepare or direct the preparation of this application for registration. I attest, under penalty of law, that this document and all attachments are true, accurate, and complete."
(d) Water-tightness certification:	A signed and dated statement from the manufacturer or agent certifying their sewage tank is watertight at the point of manufacturing. The certification must include:

	(i) A description of the test method and identification of the person performing the test; or (ii) The facility certification from National Precast Concrete Association testing.
(e) A full set of design drawings with supporting calculations:	(i) Design drawings stamped by the design engineer. (ii) The design drawings meeting all the requirements in WAC 246-272C-0200.
(f) Installation instructions.	
(g) A description of the function of the sewage tank along with any known limitation on its use.	
(h) A design engineer's certification:	A signed and dated statement from the design engineer submitted with the design documents certifying the tank meets all standards and requirements in WAC 246-272C-0200 through 246-272C-0250.
(i) Proprietary product manufacturer statement, if the tank is used with a proprietary product listed with the department:	A signed and dated statement from the proprietary product manufacturer: (i) Identifying the proprietary product model number; and (ii) Stating the tank drawings were reviewed and found acceptable for use with the specified proprietary product.
(j) Payment of all applicable fees.	

(2) **Cast-in-place tank:** The application for cast-in-place tank design and construction plan approval must include the following information:

(a) Design drawings and supporting calculations stamped by a design engineer;

(b) All tank design load limits including maximum traffic loading and earth loading;

(c) Specific excavation, compaction, bedding, tank construction, and backfill requirements;

(d) A signed and dated statement from the design engineer submitted with the design documents certifying the tank meets all standards and requirements of WAC 246-272C-0200 through 246-272C-0250; and

(e) A signed and dated statement from the proprietary product manufacturer identifying the proprietary product model number, and stating the tank drawings were reviewed and found acceptable for use with the specified proprietary product.

NEW SECTION

WAC 246-272C-0130 Sewage tanks registered list requirements--Prefabricated tanks. (1) Prefabricated tank registration expires on December 31st of the third year following initial registration.

(2) The department shall create and maintain the sewage tank registered list of prefabricated tanks built from approved design and construction plans including, but not limited to, the following:

(a) Model numbers;

(b) Tank sizes; and

(c) Manufacturer information.

(3) The department shall update the sewage tank registered list at least annually, adding and removing prefabricated tank information as necessary to keep the list current.

(4) The department may remove prefabricated tanks from the sewage tank registered list if the department determines:

(a) The prefabricated tank design and construction plans are changed to the extent a new application is required;

(b) The manufacturer or agent fails to pay applicable registration fees;

(c) The manufacturer or agent fails to renew registration pursuant to the requirements of WAC 246-272C-0140; or

(d) There are problems with the prefabricated tank, including, but not limited to:

(i) Noncompliance with the approved design and construction plan; or

(ii) Structural failure not adequately addressed by the manufacturer or design engineer.

(5) A manufacturer or agent with prefabricated tanks on the sewage tank registered list shall:

(a) Notify the department in writing of changes in contact information between registration renewal periods;

(b) Notify the department in writing of changes to the design and construction of a registered tank;

(c) Submit updated prefabricated tank design and construction plans for department review and approval when required by the department;

(d) Reapply by submitting a complete application to the department according to the registration requirements of WAC 246-272C-0120 each time a design change is made that materially affects the integrity of the prefabricated tank or the tank's performance;

(e) Pay the annual fee; and

(f) Pay any design and construction plan review fee if the department requires new design and construction plan review and approval.

NEW SECTION

WAC 246-272C-0140 Sewage tank registered list renewals. (1) All prefabricated tank renewal registrations expire on December 31st of the third year of registration.

(2) All prefabricated tank renewal applications must be received by the department no later than October 31st of the year the registration expires.

(3) An applicant may apply for a prefabricated tank registration renewal with the department by submitting:

(a) A completed and signed renewal application in the format required by the department;

(b) A signed certification fully describing all changes that occurred over the last three years and verifying that none of the changes materially affect the integrity of the sewage tank or the sewage tank's performance; and

(c) Any required fee payment. If the department receives a complete renewal application after October 31st but before December 31st of the year the registration expires, the manufacturer shall also pay a late fee.

(4) As part of the prefabricated tank registration renewal process:

(a) The department shall consider data or comments on tank performance from local health officers, utilities, or other sewage tank users received by October 31st of the year the registration expires. These comments may include concerns about a variety of issues such as product function, product reliability, and problems arising with operation and maintenance;

(b) The department shall notify the manufacturer or agent of comments received; and

(c) The manufacturer shall respond to comments within thirty days of receipt.

(5) The department shall review the prefabricated tank renewal application and provide comments to the manufacturer within sixty days of receipt.

(6) Once reviewed, the department shall approve the renewal application except when:

(a) The department does not receive a completed renewal application by December 31st, the department shall remove the affected sewage tank model number, size, and other information from the registered list no earlier than sixty days after the expiration date.

(b) The manufacturer does not submit information in response to comments;

(c) The department determines the information provided by the manufacturer does not satisfactorily address comments; or

(d) Changes to the design and construction plans materially affect the integrity of the sewage tank, its performance, or differ substantially from the original approval.

(7) Sewage tank model and size removed from the sewage tank registered list are no longer eligible for:

(a) The registered list renewal process;

(b) Sale in Washington; and

(c) Installation in Washington.

(8) A manufacturer or agent who fails to renew a prefabricated tank registration according to the requirements of this section may reapply for registration following the registration requirements in WAC 246-272C-0120.

NEW SECTION

WAC 246-272C-0150 Transition from the approved on-site sewage tanks list to the sewage tank registered list. (1) The department shall phase-out the approved on-site sewage tanks list and switch to the sewage tank registered list described in WAC 246-272C-0130.

(a) After December 31, 2009, no sewage tank information will be added to the approved on-site sewage tanks list.

(b) The approved on-site sewage tanks list remains in effect through December 31, 2011.

(2) Between January 1, 2010, and December 31, 2011, the department or local health officer may allow the use of prefabricated tanks from either list.

(3) Manufacturers may submit applications pursuant to the registration requirements in WAC 246-272C-0120 starting January 1, 2010. Applications submitted to the department no later than July 1, 2011, will be reviewed, and if approved, included on the sewage tank registered list by January 1, 2012.

(4) Starting January 1, 2012, a prefabricated tank manufacturer or agent shall comply with the registration requirements of WAC 246-272C-0130.

(5) Starting January 1, 2012, the department or local health officer shall allow use of only prefabricated tanks from the sewage tank registered list.

NEW SECTION

WAC 246-272C-0160 Post-construction cast-in-place tank requirements. If the department approves the design and construction plan and authorizes construction, the design engineer shall:

(1) Conduct a post-construction inspection of the completed cast-in-place tank;

(2) Verify all applicable requirements were satisfied;

(3) Verify all excavation, backfill, and compaction conform to the project's approved design and construction plan and specifications; and

(4) Verify construction is complete and submit a construction certification to the department prior to use.

DESIGN AND CONSTRUCTION REQUIREMENTS

NEW SECTION

WAC 246-272C-0200 Design drawing requirements for sewage tanks. (1) The design engineer shall submit calculations to the department that demonstrate the tank withstands all structural, hydraulic, hydrostatic, earth, and any anticipated traffic loads, including, but not limited to, those loads specified in WAC 246-272C-0210. The drawings must specify and show in an obvious place the tank design load limits, including the maximum traffic loading and earth loading.

(2) Drawings of the sewage tank must be complete and show all dimensions, capacities, reinforcement, structural calculations, and other data requested by the department. The drawings must be drawn to scale and show:

(a) A side section view of the tank with details on inlets, outlets, and any intercompartmental devices;

(b) Material specifications;

(c) A plan and side section view of the tank showing the dimensions, including thickness of various portions of the tank;

(d) Reinforcement details;

(e) The size and location of all inspection and maintenance access, and inlet and outlet openings in the tank;

(f) The number of compartments;

(g) The liquid capacity of each compartment in the tank; and

(h) The excavation, backfill, compaction, depth of bury, bedding and installation requirements.

NEW SECTION

WAC 246-272C-0210 General design and construction requirements--Sewage tanks. (1) **Sewage tank loads.** Sewage tanks must be designed and constructed to withstand all structural, hydraulic, hydrostatic, earth loads, and any anticipated traffic loads. They must be designed and constructed so they:

(a) Do not collapse, deform, or crack when subjected to the

anticipated loads when the tanks are either full or empty;

(b) Support a dead load equivalent to at least three feet of earth cover with a unit density of at least 110 lb/ft^3 and a 2,500 lb_f/wheel load concentration over the critical elements of the tank. Tanks installed with more than three feet of earth cover must be reinforced to support the additional load;

(c) Account for minimum hydrostatic load of 62.4 lbs/ft^3 and support earth backfill and hydrostatic pressures. Minimum lateral load calculations must include pressures due to effective weight of adjacent earth backfill and hydrostatic loads assuming the water table is at ground level;

(d) Allow for septage pumping during high ground water conditions. Internal hydrostatic pressures must be included in the calculations to allow for septage pumping during high ground water conditions assuming a water table is at ground level;

(e) Counteract buoyancy effects, assuring an adequate flotation safety factor in high ground water areas. The design engineer shall submit to the department calculations to demonstrate the tank's ability to counteract buoyancy effects and include this information as part of the sewage tank installation instructions; and

(f) Withstand a wheel load of 16,000 lb_f/wheel with fourteen feet axle spacing consistent with a HS20-44 loading as designated by AASHTO, if designed as a "traffic bearing tank."

(2) **Construction materials.** Sewage tanks must be designed and constructed of solid, durable and watertight materials that do not corrode or decay. Steel sewage tanks are prohibited. Acceptable materials include:

(a) Concrete for cast-in-place tanks; and

(b) Concrete, fiberglass, polyethylene or other solid, durable, watertight material that does not corrode or decay for prefabricated tanks.

(3) **Connections and components.** Sewage tanks must be designed and constructed using structurally sound and watertight access connections or components, either into the tank or through the tank's walls. Sewage tank connections and related components include:

(a) Inlet and outlet fixtures;

(b) Electrical conduits; and

(c) Access ports, inspection ports, and risers.

(4) **Inlets, outlets, and intercompartmental fittings or baffles.**

(a) Sewage tank inlets, outlets, and intercompartmental fittings must:

(i) Provide effective scum storage and sludge retention; and

(ii) Be constructed of a durable material and attached to the walls of the tank in a secure and corrosion resistant fashion.

(b) All inlet and outlet devices must have sanitary tees constructed of:

(i) PVC conforming to or exceeding the requirements of ASTM D 3034; or

(ii) ABS conforming to or exceeding the requirements of ASTM

D 2680.

(c) All sanitary tees must have a minimum of four inches inside diameter. For a larger capacity tank, the diameter must be greater to accommodate the design flow.

(d) Concrete baffles are allowed if cast with the tank pour. Concrete baffles installed after the tank has been poured are not allowed.

(5) **Seals and gaskets.** Seals and gaskets for inlet, outlet, and intercompartmental fittings must be resilient, watertight, corrosion-resistant, and flexible. Seals meeting ASTM C-1644, or equivalent must be used to join the tank wall and the PVC piping to prevent leakage at the wall connection.

(6) **Water-tightness.** Sewage tanks must be watertight and prevent surface drainage and ground water from entering into the tank or connected chambers. To ensure the entire on-site sewage system is watertight, the department and local health officers are encouraged to test sewage tanks in the field at installation.

(7) **Air space and venting.** Sewage tanks must provide air space to allow gases to vent through the main building sewer vent or other plumbing vent stacks to the atmosphere.

(a) Air space must be above the liquid surface in the tank back and through the tank's inlet.

(b) Sewage tanks must maintain at least a one-inch air space between the underside of the top of the tank and the top of any of the inlet, outlet, or intercompartmental fitting to vent gases.

(c) Sewage tanks that do not adequately vent through the building plumbing vent stacks must:

(i) Use a carbon-filtered vent above the ground surface; or

(ii) Bury the end of the vent in a gravel trench in a manner adequate to prevent infiltration from ground water or surface water.

(d) Use another sewage tank venting method approved by the department according to the requirements under WAC 246-272C-0500.

(8) **Confined space.** Designs must take into account whether the space is a confined space. Confined spaces must comply with the department of labor and industries' requirements in chapter 296-809 WAC, Confined spaces.

(9) **Forms or processes.** Manufacturers of prefabricated tanks may use any form or process to construct the tank, provided the tank meets or exceeds the standards and requirements in this section through WAC 246-272C-0250.

(10) **Coatings.** Coatings, sealants or liners may be added to the inside or outside of the sewage tanks to enhance corrosion protection and water-tightness of the tanks. All coatings, sealants, or liners must be rated and warranted by the manufacturer for use with sewage or sewage effluent.

(11) **Access openings and risers.** Access openings must be large enough for a person with equipment to easily clean, maintain, remove, and replace sewage tank components.

(a) The minimum diameter of the sewage tank opening must be:

(i) Eighteen inches for tanks with a liquid volume of less than or equal to two thousand gallons; and

(ii) Twenty inches for tanks with a liquid volume greater than two thousand gallons.

(b) Maximum distance between access points on a tank must be ten feet center-to-center.

(c) Access openings must be located above the inlet and the outlet.

(d) Access openings must be located directly above any pumping or dosing equipment, or effluent screen or filter.

(e) Risers must be a minimum of twenty-three inches in diameter.

(f) Connection of the riser to the tank and the connection of additional riser sections must incorporate joint grooves or adapters to prevent lateral movement and to remain watertight.

(g) Access and riser openings must be covered with a lockable lid or other type of secured lid to prevent unauthorized entry.

(h) Access risers and lids must be structurally sound to withstand the anticipated site-specific load conditions of the riser.

NEW SECTION

WAC 246-272C-0220 Additional requirements for septic tanks. (1) **Septic tank compartments.** Septic tanks must be designed and constructed with a minimum of two compartments. This standard may be met by one tank with two compartments or by two single compartment tanks in series.

(a) The first compartment must consist of at least one half but no more than two thirds of the total required liquid volume; and

(b) The second compartment must consist of the remaining total required liquid volume.

(2) **Septic tank inlets.** Septic tank inlets must meet the following:

(a) The inlet sanitary tee or baffle extends at least eight inches downward below the liquid level;

(b) The inlet sanitary tee or baffle extends above the liquid surface at least to the crown of the inlet pipe; and

(c) The invert of the inlet pipe is a minimum of two inches above the invert of the tank outlet.

(3) **Septic tank outlets.** Septic tank outlets must meet the following:

(a) The outlet sanitary tee or baffle extends below the liquid level at least thirty percent, but not more than forty percent of the liquid depth for tanks with straight vertical sides;

(b) The outlet sanitary tee or baffle extends below the liquid level at least twenty-five percent, but not more than thirty-five percent of the liquid depth in horizontal cylindrical tanks; and

(c) The outlet sanitary tee extends sufficiently to allow scum

storage and venting, and to a point not less than one inch from the underside of the top of the tank. The outlet tee may extend into the riser for venting.

(4) **Septic tank effluent screens or filters.** Septic tanks must be designed and constructed to accommodate effluent screening devices or filters. The department and local health officers are encouraged to evaluate effluent screen or filter use on a case-by-case basis during the on-site sewage system design phase. Specific effluent screen or filter criteria or requirements, if any, are included under chapter 246-272A or 246-272B WAC.

(5) **Septic tank intercompartmental wall fittings.**

(a) The septic tank must have intercompartmental wall fittings that extend below the liquid level at least:

(i) Thirty percent, but not more than forty percent of the liquid depth for tanks with straight vertical sides; or

(ii) Twenty-five percent, but not more than thirty-five percent of the liquid depth in horizontal cylindrical tanks.

(b) Slots or ports may be used as intercompartmental fittings.

(i) The location of the slot or port must be at the same depth as the bottom of outlet tees or baffles; and

(ii) The opening must have a minimum area of twelve square inches with a minimum vertical dimension of three inches.

(6) **Septic tank intercompartmental walls.** The septic tank must have intercompartmental walls that:

(a) Restrict solids from moving from one compartment to the other except through the intercompartmental wall fittings; and

(b) Withstand pumping of the adjacent compartment without risking structural damage or functional failure.

(7) **Septic tank scum storage.** The septic tank must allow air space volume for scum storage of at least ten percent of the liquid volume of the tank. The department may approve an increase or decrease in the air space requirements according to the requirements under WAC 246-272C-0500.

(8) **Septic tank length to width ratio.**

(a) The length of a septic tank with a liquid capacity less than three thousand gallons must be a minimum of 1.25 times the width.

(b) The length of septic tanks with a liquid capacity greater than or equal to three thousand gallons must be a minimum of 1.5 times the width.

(9) **Septic tank liquid capacity depth.** Septic tanks must contain a liquid depth of not less than three feet.

NEW SECTION

WAC 246-272C-0230 Additional requirements for grease interceptor tanks. (1) **Grease interceptor compartments.** Grease interceptor tanks must be designed and constructed with a minimum

of two compartments. This standard may be met by one tank with two compartments or by two single compartment tanks in series.

(a) The first compartment must consist of at least one half but no more than two thirds the total required liquid volume; and

(b) The second compartment must consist of the remaining total required liquid volume.

(2) **Grease interceptor inlets.** Grease interceptors must have inlets that meet the following:

(a) The sanitary tee or baffle must extend into the liquid a distance within eighteen inches from the bottom of the tank;

(b) The sanitary tee or baffle must extend above the liquid surface at least to the crown of the inlet pipe; and

(c) The invert of the inlet pipe must be a minimum of two inches above the invert of the tank outlet.

(3) **Grease interceptor outlets.** Grease interceptors must have outlets that provide for adequate grease storage and the outlet sanitary tee or baffle must extend:

(a) Into the liquid to a point between six inches and twelve inches from the bottom of the tank; and

(b) Above the liquid level sufficiently to allow scum storage and venting, and to a point not less than one inch from the underside of the top of the tank. The outlet tee may extend into the riser for venting.

(4) **Grease interceptor intercompartmental wall fittings.**

(a) All grease interceptor intercompartmental wall fittings must extend into the liquid to a point between six inches and twelve inches from the bottom of the tank.

(b) If slots or ports are used as intercompartmental fittings:

(i) The location of the slot or port must be at the same depth as the bottom of outlet tees or baffles; and

(ii) The opening must have a minimum area of twelve square inches with a minimum vertical dimension of three inches.

(5) **Grease interceptor intercompartmental walls.** Grease interceptor intercompartmental walls must:

(a) Restrict solids from moving from one compartment to the other except through the intercompartmental wall fittings; and

(b) Withstand pumping of the adjacent compartment without risking structural damage or functional failure.

(6) **Grease interceptor tank liquid depth.** Grease interceptor tanks must contain a liquid depth of not less than three feet.

NEW SECTION

WAC 246-272C-0240 Additional requirements for pump tanks. (1) A sanitary tee or baffle is required when effluent is pumped into the pump tank.

(2) The sanitary tee or baffle for a pump tank must meet the following requirements:

(a) The inlet sanitary tee or baffle must be installed on the inlet of the pump tank; and

(b) The inlet sanitary tee or baffle must extend into the tank a minimum of eight inches below the invert elevation of the inlet pipe.

NEW SECTION

WAC 246-272C-0245 Additional requirements for trash tanks. (1) Trash tanks must be designed and constructed for use as a pretreatment tank or compartment.

(2) Trash tank volume must not be used as part of the calculations of the required septic tank volume.

NEW SECTION

WAC 246-272C-0250 Identification. Manufacturers shall permanently identify each sewage tank. The manufacturer shall display the following information on the top of each tank near the inlet end of the tank or inside the riser if the riser is cast in the tank:

(1) Manufacturer name or logo;
(2) The tank's liquid capacity in gallons;
(3) Maximum burial depth;
(4) The date manufactured or constructed; and
(5) The tank model number or serial number, if available.

WAIVERS, COMPLIANCE, AND ENFORCEMENT

NEW SECTION

WAC 246-272C-0500 Waiver of state regulations. (1) The manufacturer or agent, or the design engineer may request a waiver in writing, stating the reason for the waiver.

(2) The department may grant a waiver request if it is consistent with the applicable standards and intent of these rules.

(3) If the department approves a waiver request, the department shall notify the requestor of the decision in writing.

(4) If the department denies a waiver request, the department shall notify the requestor of the decision in writing stating the reasons for the denial.

NEW SECTION

WAC 246-272C-0520 Enforcement. (1) The department shall enforce the provisions of this chapter.

(2) When a person violates the provisions under this chapter, the department or office of the attorney general may initiate enforcement or disciplinary actions, or any other legal proceeding authorized by law including, but not limited to, any one or a combination of the following:

(a) Informal administrative conferences, convened at the request of the department or tank manufacturer, to explore facts and resolve problems;

(b) Orders directed to the tank manufacturer or person causing or responsible for the violation of this chapter;

(c) Denial, suspension, modification, or revocation of approvals, registrations, or certification;

(d) The penalties under RCW 43.70.190; and

(e) Civil or criminal action.

(3) Orders authorized under this section include the following:

(a) Orders requiring corrective measures; and

(b) Orders to stop work or to stop sales of sewage tanks until the manufacturer obtains all certifications and approvals required by rule or statute.

(4) Enforcement orders issued under this section must:

(a) Be in writing;

(b) Name the person or persons to whom the order is directed;

(c) Briefly describe each action or inaction constituting the violation and the rule or statutory citation;

(d) Specify any required corrective action, if applicable;

(e) Specify the effective date of the order, with a timeline of compliance;

(f) Provide notice of the consequences of failure to comply or repeated violation, as appropriate;

(g) Provide the name, business address, and phone number of the department staff person who may be contacted regarding an order.

(5) Enforcement orders issued under this section may include a statement that continued or repeated violation may subject the violator to:

(a) Denial, suspension, or revocation of approval or registration;

(b) Referral to the office of attorney general; or

(c) Other appropriate remedies.

(6) Enforcement orders must be personally served in the manner of service of a summons in a civil action or in a manner showing proof of receipt.

(7) The department shall have cause to deny the application or reapplication, or to revoke, suspend, or modify registrations or approvals of any person who:

(a) Fails or refuses to comply with the provisions of this chapter, or any other statutory provision;

(b) Obtains or attempts to obtain a required certificate or approval by fraud or misrepresentation; or

(c) Manufactures or constructs a tank which structurally fails or collapses.

NEW SECTION

WAC 246-272C-0540 Notice of decision--Adjudicative proceeding. (1) The department shall provide notice of the denial, suspension, modification, or revocation of a registration, certification, or approval consistent with RCW 43.70.115, chapters 34.05 RCW and 246-10 WAC.

(2) A person contesting a departmental decision regarding a registration, certificate, or approval may file a written request for an adjudicative proceeding consistent with chapter 246-10 WAC.

SEVERABILITY

NEW SECTION

WAC 246-272C-0650 Severability. If any provision of this chapter or its application to any person or circumstances is held invalid, the remainder of this chapter, or the application of the provision to other persons or circumstances shall not be affected.