This document outlines the requirements for tank repairs and replacements. If a septic or pump tank is not watertight and leaking, you can either repair or replace the tank. Examples of tank repairs include repairing cracks and pick holes.

**Tank repairs**

Certified septic professionals can repair tanks twice before they need to replace. After any concrete repairs have cured, they need to perform a water tightness test. Certified septic professionals should report their findings in OnlineRME and state the length of water-tightness test (24-hours or 8-hours).

**If the system isn’t in use:**
- Fill the tank to the invert of the outlet.
- Come back after 24 hours to determine if the water level has fallen.

**If the residence is occupied:**
- Fill the tank to the invert of the outlet.
- Ask residents to leave the house for 8 hours, if possible.
- Come back after 8 hours to determine if the water level has fallen.
- If residents can’t leave the house for 8 hours, contact the Health Department to determine alternative options.

**General requirements and considerations for tank replacements**

We allow discrete tank replacements outside of any repairs on the drainfield.

Site plans and record drawings must meet requirements outlined in [Environmental Health Code Chapter 2](#).

- All new tanks must meet criteria defined in Environmental Health Code Chapter 2, WAC 246-272A, Recommended Standards and Guidance (RS&G) documents, and [List of Registered Sewage Tanks](#).
- We require an initial full (routine or startup) operation and maintenance (O&M) inspection of all components for all tank replacements.
  - We require a stress test of the drainfield for gravity and pump to gravity systems when the tank being replaced wasn’t water-tight and the liquid level was low. The test must be performed before replacing the tank.
  - When no record drawing is available, we require a locate.
  - We require locates for any drainfield without clear records within 100 feet of surface water. We may require dye testing.
- You must include startup inspection information on the record drawing.
  - The installer must verify the system is operational before you submit your record drawing.
- Certified septic professionals must install outlet filters on all septic tanks.
  - Outlet filters should meet requirements in [Pressure Distribution Systems RS&G 2.3.3](#).
- A designer must justify the adequacy of any system where tanks are replaced for remodel applications and no previous permitting records are available.
- Refer to the [One-Compartment Septic Tanks Policy](#) when a one-compartment septic tank is present.
Tank Replacement and Repair Requirements

Pump tank replacement – Pressure system

- Installers may apply for pump tank replacement if the new tank will be the same size (1000-gallon minimum) and similar elevation as the original tank and system meets current O&M requirements.
  - Tank must meet current sizing requirements.
- Designers must submit the application if tank size, elevation, etc. need to change from the original.
- We require a full O&M startup inspection with a pressure test at time of installation.
  - Certified septic professionals must install sweeps if not present.
  - A certified septic professional or homeowner must add risers to all tanks, including tanks that are not being replaced.
  - Ball valves must be accessible.
  - System must be time dosed at record drawing. Install control panel if not present.

Pump tank replacement – Pump to gravity system

- Designers or installers may apply for pump tank replacement when a timer panel is present. Designers must submit the application if a timer panel is not present.
  - Tank must meet current sizing requirements.
  - Pump basins must be replaced by a 1000-gallon minimum tank per Dosing Gravity Drainfield Systems RS&G.
  - Consult with Health Department staff if site constraints do not allow a 1000-gallon tank. We may require a variance.
- We require a full O&M start up inspection with exposure and inspection of the distribution box (when present) at time of installation. We require the installation of a timer panel when not present.
- A certified septic professional must take measures to dissipate the velocity of the influent delivered by a pump or siphon, and to prevent direct flow of effluent across the distribution box resulting in unequal distribution among the outlets – Dosing Gravity Drainfield Systems RS&G.

ATU tank replacement

- You must submit Aerobic Treatment Unit (ATU) tank and sand filter unit replacement applications as a Partial Repair application. This includes a change to a different treatment product.
- Designers must submit these applications when:
  - The ATU is being replaced with a different make, model, or capacity.
  - A sand filter is being replaced with another sand filter or a different treatment level B device.
- Installers may submit applications to replace ATU tanks when they are the same make, model, and capacity as the existing ATU.
  - Replacement should occur in the same area/elevation as the previous tank(s).

Septic tank replacement

Designers or installers may submit septic tank replacement applications. The Installer should verify effluent reaches d-box after they install the new tank.
Tank Replacement and Repair Requirements

Definitions

System locate
Helps estimate septic system capacity—used to expand, replace or add a residential or commercial structure served by an existing OSS or change the use of a structure served by an existing OSS (Sec 31, table 7).

- If the system is inadequate for the proposal, we may require a new septic design.
- A septic professional should locate the system and draw a site or design plan.
- The drawing must provide clear and accurate information about all septic components:
  o Tank(s) size, material, and number of compartments.
  o Pumps.
  o Transport line.
  o Drainfield location, length and depth of each lateral, and material used.
- The drawing must also include:
  o The septic professional’s name and title/license.
  o The method used to locate and identify the components (camera scoped, located each end of laterals, dug up tank, etc.).

Stress test
Stress tests provide a snapshot on the functionality of the septic system and do not determine capacity. They need to be completed within 24 hours. Certified septic professionals must document any variation from the requirements listed below.

The stress test needs to be performed from outlet of septic/pump tank (or distribution box, if applicable). Filling a 5-gallon bucket to determine the average flow per minute is sufficient to determine stress test volume. Alternatively, use a flowmeter at the faucet. We recommend performing the stress test prior to pumping.

For systems in use during the stress test:

- Use 120 gallons for each connected residence. You can complete this in the amount of time it takes to dose 120 gallons into the tank.

For systems not in use 24 hours before the stress test. If:

- You have a credible record drawing, multiply the number of bedrooms by 120 gallons. For example, a system approved for 3 bedrooms requires 360 gallons.
- The record drawing specifies a different design flow, use that number.
- You don’t have a credible record drawing, use the number of bedrooms multiplied by 120 gallons.

Unsatisfactory test results

- An unsatisfactory stress test may require further investigation, remediation, or system replacement.
- The stress test is unsatisfactory if water returns to the tank or distribution box during the test.