

## 4.9 Floating Vault Toilets and Boat or Vessel Sewage Disposal

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### 4.9.1 Description

#### 4.9.1.1 Floating Vault Toilet Description

Vault toilets and boat/vessel dump stations are necessary wastewater disposal facilities at recreational sites around water bodies. Many boats and vessels do not contain onboard toilets making it necessary to provide toilet facilities at recreation sites around water bodies such as boat ramps, docks, and campgrounds. The facilities provided most often are vault toilets. Due to the remoteness of some recreation sites, installation of a standard vault privy (section 4.27) may not be possible. Additionally, some recreational water bodies may be large enough that convenient use of a standard vault privy on shore is not feasible. To preserve the quality and beneficial uses of the waters of the state of Idaho it is preferable to have toilet facilities available at recreational areas that attract a large number of users. To accomplish this at recreational water sites, floating toilet facilities may be used for temporary storage of sewage.

#### 4.9.1.2 Boat or Vessel Sewage Disposal Description

Some boats and vessels do contain onboard toilet facilities that are classified as Type I, II, and III marine sanitation devices (MSD) or portable toilets. Type I and II MSD may have the ability to treat and discharge wastewater from the boat or vessel into the surrounding waters while a Type III MSD is certified to a no-discharge standard. Portable toilets are sewage collection devices that are self-contained and removable from a boat or vessel. Regardless of a boat or vessel's MSD type or use of portable toilets, discharge of wastewater or sewage (treated or untreated) from a boat or vessel into waters of the state of Idaho is illegal per IDAPA 58.01.02.080. The rule requires that any wastewater or sewage generated and stored on a boat or vessel must be disposed of at an approved facility (e.g., recreational vehicle dump station, septic system, or public system).

### 4.9.2 Approval Conditions

1. Wastewater generated on a boat or vessel and held in an MSD may be removed while the boat remains in the water by the following:
  - a. Dockside sewage connection to an approved municipal treatment system or an approved subsurface sewage disposal system sized for this use. Dockside sewage collection systems shall be reviewed and approved by DEQ.
  - b. Mobile boat pump-out service. Pump-out services constructed on a boat, vessel, or vehicle that is used to transport sewage or wastewater for disposal must be permitted by a health district (IDAPA 58.01.15.003). Small mobile pump stations that are nonmotorized and only used to pump boat holding tanks at a dock or marina and used to transport the contents to an approved disposal facility located near the dock or marina do not need to be permitted by a health district.

- c. Pump-out station that transfers wastewater from a boat or vessel to an approved municipal treatment system or an approved subsurface sewage disposal system sized for this use. Permanent pump-out stations constructed with a transport line from the pump-out location to the approved disposal site shall be reviewed and approved by DEQ as part of a sewage collection system.
2. Wastewater generated on a boat or vessel and held in an MSD that is not removed while the boat is in the water shall be disposed of in one of the following locations:
  - a. An approved municipal treatment system or an approved subsurface sewage disposal system
  - b. An approved RV dump station
3. Wastewater generated on a boat or vessel and held in a portable toilet may not be discharged overboard, on the ground or into surface waters, and shall be disposed of in one of the following locations:
  - a. An approved municipal treatment system or an approved subsurface sewage disposal system
  - b. An approved RV dump station
4. Floating vault toilet facilities located over waters of the state of Idaho shall be permitted by a health district and must meet the requirements of section 4.9.3.

#### **4.9.3 Floating Vault Toilet Design Requirements**

1. Floating vault toilets are limited to use on lakes, reservoirs, and ponds, where municipal services and subsurface sewage services are not available.
2. Floating vault toilets shall not be located within 300 feet of a surface water intake used for a drinking water supply.
3. Floating vault toilets must be pumped by an Idaho-permitted septic tank pumper. The pumper must be identified in the permit application and demonstrate they have the equipment necessary to access and pump the vault.
4. Floating vault toilets shall not be used as dump stations or holding tanks for wastewater generated in a boat or vessel's MSD or portable toilet.
5. The floating vault toilet shall be designed by a PE to ensure the structure is capable of withstanding adverse weather and wave action without tipping over, sinking, or sustaining severe damage, or may be obtained from a manufacturer with a design and model that has been preapproved by DEQ.
6. The floating vault tank, deck, and building shall meet the design requirements described in the following sections.

##### **4.9.3.1 Hull or Dock**

1. A floating vault toilet may be placed on an individual hull or dock that is either connected to shore or in the middle of the water body.
2. Hulls and docks shall be independently constructed from the vault tank and meet the following:
  - a. Capable of supporting the vault toilet when full

- b. Capable of withstanding adverse weather and wave action without tipping over, sinking, or sustaining severe damage
  - c. Securely anchored at their proposed location
3. Hulls or floating docks must be able to withstand towing or pushing to and from shore for storage and maintenance needs.

#### **4.9.3.2 Tank**

1. The vault tank shall be constructed to be watertight, constructed of durable materials that are not subject to excessive corrosion, decay, or cracking.
2. The vault tank shall be contained within an external shell (double-hulled) that is designed to protect the tank from impact and grounding and provides secondary containment if the vault tank develops a leak.
3. The vault tank shall be fitted with at least one clean-out hatch meeting the following minimum design requirements:
  - a. Closes to be watertight.
  - b. Locks so that the vault tank is not accessible to users.
4. The vault tank shall have a minimum capacity of 375 gallons for each toilet, except that no tank may be less than 500 gallons.
5. The vault tank shall be adequately vented and the vent shall be screened with a maximum screen size of 16-mesh.

#### **4.9.3.3 Building**

1. The building shall be firmly anchored to the hull or dock and rigidly constructed of materials that are capable of withstanding constant exposure to water.
2. All openings, spaces, and cracks that would permit flies to access the vault tank must be no wider than 1/16 inch.
  - a. Includes doors and seats when closed.
  - b. All gaps larger than 1/16 inch shall be screened with a maximum screen size of 16-mesh.
3. Doors shall be self-closing.
4. The building shall be adequately ventilated.
5. The seat opening shall be at least 12 inches from the side walls in all privies and spaced so that there is at least 24 inches between seats in multiple-seat installations.
6. The seat top shall not be less than 12 inches nor more than 20 inches above the floor.
7. The seat shall be constructed of nonabsorbent material.
8. The building shall contain an adequate number of grab bars inside and outside of the building.

#### **4.9.4 Operation and Maintenance**

The floating vault toilet permit application shall be accompanied with an operation and maintenance manual provided by the design engineer or manufacturer that includes the following information:

1. Operation, maintenance, and replacement instructions for any mechanical or electrical components
2. Pumping and servicing/cleaning instructions including pumping frequency
3. Seasonal maintenance needs
4. Annual or biannual maintenance needs
5. Launching, trailering, and anchoring instructions
6. On-water transportation instructions
7. Winterization needs