

3.2.3.1 Conversion of a Septic Tank to a Lift Station

In some circumstances an existing subsurface sewage disposal system may have been installed deeper than the current maximum installation depth for a subsurface sewage disposal system. Upon repair or replacement of the existing system it may be necessary to raise the discharge point elevation of the effluent to meet the current installation depth standards for the drainfield. This may be done in one of two ways:

1. Installation of a septic tank or dosing chamber after the existing septic tank.
 - a. The septic tank or dosing chamber must have an approved bury depth meeting the depth of the existing septic tank.
 - b. A pump must be installed, meeting the requirements in section 4.20, in the new septic tank or dosing chamber to lift the effluent to the maximum drainfield installation depth.
2. Conversion of the existing septic tank into a lift station to raise the effluent into a newly installed septic tank that is capable of gravity flow to the maximum drainfield installation depth.

Either of these methods is allowable, but the recommended method is the installation of a septic tank or dosing chamber after the existing septic tank (oversized risers are recommended for access to these tanks). This is due to the following reasons:

- The wastewater undergoes primary treatment (clarification in the septic tank) prior to passing through a pump.
- Wastewater that has not undergone primary treatment prior to pumping does not settle out in the septic tank as well once it has passed through a pump.
- Less solids, fats, oils, and greases associated with wastewater are passed to the drainfield if the wastewater undergoes primary treatment prior to passing through a pump.

If an applicant or installer elects to convert an existing septic tank into a lift station, instead of installing a septic tank or dosing chamber after the existing septic tank, the following should be taken into consideration:

- The conversion of the septic tank into a lift station must be done under a permit from the Idaho Division of Building Safety Plumbing Program and Electrical Program.
 - The Plumbing Program inspects everything from the converted lift station up to the newly installed septic tank.
 - The Electrical Program inspects all electrical connections and installation associated with the lift station pump.
 - A subsurface sewage disposal installer's registration permit is not a substitute for a proper plumbing or electrical license.
- The Idaho State Plumbing Code allows a lift station to discharge the entire volume of the lift station when the pump turns on.
 - This will cause the entire volume of the lift station to discharge to the new septic tank with each pump cycle if the pump control floats are not adjusted.

- It is recommended that lift station pump control floats be adjusted to discharge 25% of the daily design flow of the subsurface sewage disposal system with each pump cycle.

It is also important that the applicant and installer protect the drainfield to the best of their ability if a lift station is installed prior to a septic tank. The following minimum recommendations may help achieve this goal:

- An effluent filter should be installed in the outlet baffle of the new septic tank and the outlet manhole brought to grade through the installation of a lid riser to aid in effluent filter maintenance.
- The septic tank should be oversized to increase retention and settling time of the wastewater in the septic tank prior to discharge to the drainfield.
- A two-compartment septic tank should be installed to aid in settling of the wastewater in the septic tank prior to discharge to the drainfield.
- The pump used in the lift station should be capable of passing larger solids (not larger than the transport piping from the lift station to the septic tank) and grinder-type pumps should be avoided.