

Mission:

To protect, promote & improve the health of all people in Florida through integrated state, county & community efforts.



Rick Scott
Governor

Celeste Philip, MD, MPH
Surgeon General and Secretary

Vision: To be the Healthiest State in the Nation

MEMORANDUM

INFORMATION
DCEH 2016-010

DATE: September 29, 2016

TO: County Health Department Directors/Administrators
ATTN: Environmental Health and Engineering Directors

THROUGH: Kendra F. Goff, PhD, DABT, CPM, State Toxicologist and Chief
Bureau of Environmental Health *KFG*

FROM: Ed Barranco, MPH, CEHP, CPM, Environmental Administrator
Bureau of Environmental Health Onsite Sewage Programs *Ed Barranco MPH*

SUBJECT: Water Softener Discharge into Onsite Systems

INFORMATION ONLY

The information provided in this memorandum supersedes all other previous memos or interpretations provided by this office regarding the subject matter.

The Onsite Sewage Program office has recently been involved with concerns related to the discharge of water softener brine (recharge waste) into the onsite sewage treatment and disposal system (OSTDS). Historically, in 2003, we issued memo 03-015 stating the department did not recommend against water softener brine discharge connection to the onsite sewage treatment and disposal system, which was based on the studies at the time.

While more recent studies indicate that an "efficiently run" water softener should not impair the OSTDS and may enhance treatment, these appear to be the best-case scenarios. In worst-case scenarios, this practice results in the discharge of excessive amounts of salt and/or volume of backwash water into the system which can affect the ability of the contents of the septic tank to properly settle, leading to increased solids bypassing the outlet filter and improper formation of the scum layer, as well as hydraulic overload of the system. It is also known that the soil structure of fine-textured soils can be affected by high sodium levels which decreases soil permeability, which can result in drainage problems. It is also possible to have leaks in the water softener unit itself which can result in the discharge of hundreds of gallons per day of excessive water. Any excessive water being discharged over a sustained period will have an adverse effect on the OSTDS.

Florida Department of Health

Division of Disease Control & Health Protection • Bureau of Environmental Health
4052 Bald Cypress Way, Bin A-08 • Tallahassee, FL 32399-1710
PHONE: 850/245-4250 • FAX: 850/487-0864

FloridaHealth.gov



Accredited Health Department
Public Health Accreditation Board

While this type of waste is not specifically prohibited from being discharged into the system, based on the available current information, we have come to the following conclusions:

- The volume from the water treatment system brine recharge has not been calculated into the estimated sewage flow, including the matter of using on-demand versus timed-recharge functions.
- The effects of the volume and content of brine on an individual system cannot be pre-determined based on our regulations.
- Accounting for lack of appropriate maintenance as well as inefficiently operated water softeners is beyond the scope of the permitting, use and maintenance of a septic tank system.

Based on these conclusions, we recommend that water softener brine waste not be discharged into the OSTDS. The water softener waste must be discharged so that it does not impact the OSTDS or any required unobstructed area.

Please note that Reverse Osmosis (RO) units cannot be connected to department-regulated OSTDS, as they produce a much higher discharge and non-domestic strength waste.

Regarding OSTDS repairs, water softener use should be investigated during the evaluation, as its use may be impacting the operation of the system.

Please provide a copy of this memorandum to all engineers, certified inspectors, licensed septic tank contractors and plumbers performing services in your county. Any questions on this memorandum should be addressed to your program consultant.

cc: County Health Systems