

**APPROVAL STANDARDS for
ONSITE SEWAGE TREATMENT and DISPOSAL SYSTEMS
OUTLET FILTER DEVICES
November 2008**

DESIGN AND PERFORMANCE CRITERIA

- x **FLOW**--The minimum sized filter shall provide a minimum clean water flow rate of 4.2 gallons per minute when tested in a setup that places the filter in its operating position and the clean water head is at the center of a 4" sewer line at the septic tank inlet.
 - x **FILTER AREA**--Specify total filter surface area, in square feet, (filter solid area plus filter void area) x **FLOW AREA**--Specify filter open area, in square feet, (filter void area only) x **FILTRATION**--Filters shall prevent solid particles larger than a nominal 1/8" diameter sphere from passing through the filter.
 - x **CLOGGED FILTER BY-PASS PROTECTION**--There shall be no bypass capability designed into the filter which will allow waste to be discharged.
 - x **FILTER CONSTRUCTION**--Openings developed by penetration, sawcut, or equivalent shall be process controlled and all mold flash and penetration burrs removed. The filter shall be secured so that inadvertent movement does not take place during operation.
 - x **STRUCTURAL INTEGRITY**--The filter shall be designed such that the filtering medium maintains structural integrity throughout the useful life of the device. The filter medium shall not tear or otherwise distort so as to make the filter inoperable during normal operations of the septic tank. x
- OPERATIONAL VERIFICATION**--The manufacturer shall provide results of field testing for their product(s) being considered for approval.
- DRAWINGS**--Manufacturer shall provide drawings to the Department with the written request for product approval submittal. Drawings shall show all dimensions. Drawings shall also show the location of the filter label and shall include an illustration of the label.
- FREQUENCY OF MAINTENANCE**--Manufacturer shall provide data and information reflecting actual operational experience related to the frequency of necessary unit maintenance to keep the unit functional and shall specify the recommended method and frequency of maintenance.
- INSTALLATION INSTRUCTIONS**--Manufacturer shall provide installation instructions to installer.
- MATERIALS OF CONSTRUCTION**--The filter shall be constructed of proven corrosion resistant material for use in wastewater environments.
- MAINTENANCE ACCESSIBILITY**--64E-6.013(2)(k), FAC requires accessibility to the inlet and outlet devices. When outlet filter devices are used, this rule shall include convenient accessibility to the filter for maintenance through service manholes or equivalent.
- PRODUCT LABELING**-- All filters installed on or after January 1, 2010, shall be indelibly labeled with the name of the filter manufacturer and the model of the filter. The location of the label and an illustration of the label shall be included in the filter drawings provided to the Department. All identifying marks shall be inscribed or affixed at the point of manufacture.

CERTIFICATION TO DEPARTMENT OF HEALTH, ONSITE SEWAGE PROGRAM

The manufacturer shall certify to the Department that the filter(s) meet the requirements of this standard.

FILTER APPLICATION--Filters shall be sized in accordance with the manufacturers' recommendations for the service intended.

**OUTLET FILTER DEVICES
EXTERNAL TO THE SEPTIC TANK**

STRUCTURAL INTEGRITY OF THE FILTER CHAMBER

- x Materials subject to corrosion in a septic tank effluent environment shall not be used. x
Plastics, fiberglass, and similar non-corrosive materials shall be a minimum of 1/8" thickness.
- x Chambers shall be designed by a professional engineer registered in the state of Florida to withstand saturated soil pressures to a depth of 48 inches with an actual calculated stress of 67% of the allowable stress for shear, flexural, compressive and tensile properties of the chamber materials. The chamber manufacturer shall specify the maximum permissible depth below grade of the chamber lid.
- x Chamber lids shall be reinforced to withstand a 300 lb. vertical load placed at the center of the lid. Under such load the lid shall not crack, temporarily invert, or permanently deform.

Inlet and outlet connections shall be watertight.

ACCESS TO AND CLEANING OF THE FILTER

- x Access to the chamber shall be within 8 inches of final grade. x Lids shall be equipped with a locking mechanism designed to prevent easy access without proper tools. x For filters utilizing a disposable media the manufacturer shall specify the proper method of disposal of the filter media.

LOCATION WITH REGARD TO EFFLUENT PUMPS

- x Filter must be upstream of any pumps in the effluent system. x
Filter must be immediately after the septic tank for dual compartment tanks.
- x Filter must be immediately after the second tank for tanks in series.

EFFLUENT FROM THE SEPTIC TANKS

- x An outlet tee with a solids deflector or 90-degree elbow shall be required by rule for effluent exiting the second compartment of a dual chamber tank or second tank for tanks in series.

FALL ACROSS THE CHAMBER

- x The inlet invert shall be at least 1" above the outlet invert.

INSTALLATION

- x The chamber shall be installed level on soil that has been compacted to prevent vertical movement of the chamber. Compaction can be achieved by manually tamping the soil with a sledgehammer or equivalent.
- x The chamber shall not be installed within 18" of the drainfield infiltrative surfaces.