

**NORTH CAROLINA DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH**

SEPTIC TANK EFFLUENT FILTER APPROVAL

Septic Tank Effluent Filter Approval Number: EF-22-R3

Issued to: Watercore LLC
146 Clifton Hall Ct
Shepherdsville, KY 40165
812-493-4550

Contact: Emily Search

For: Watercore LLC Septic Tank Effluent Filter Models C4, C4C, and C4CBF

Date: April 21, 2020
September 9, 2020 Correction to Table 2
March 16, 2022 Addition of LT-1/16, LT-1/32, and LT-1/64

In accordance with G.S. 130A-335 and 130A-335.1 and 15A NCAC 18A .1954, an application by Emily Searcy of Watercore LLC for an approval of septic tank effluent filters has been reviewed and the above referenced models have been found to meet the requirements for approval when the following conditions for use, installation, operation, and maintenance are met:

I. Description

- A. Filters shall be designed and manufactured in accordance with plans, specifications, and supporting documents provided by the manufacturer in their application for approval submitted to the On-Site Water Protection Branch. The On-Site Water Protection Branch shall be notified in writing of any additions or modifications to the approved filter models prior to use in on-site wastewater systems.
- B. Filters shall meet the specifications in Table 1.
- C. This approval may be amended to incorporate additional filter models when they are found to meet the requirements of G.S. 130A-335 and 130A-335.1 and applicable rules.

Table 1. Approved Filter Model Specifications						
Filter Models	Size	Support Case ¹	Case Dimensions		Min. Tank Liquid Depth Required	Min. Access Opening Size ²
			Above Liquid Level	Below Liquid Level		
C4	4.5"	4" T-Baffle	6"	18"	36"	15 in x 15 in, 17 in dia, or equal
C4C	4.5"	4" T-Baffle	6"	18"	36"	15 in x 15 in, 17 in dia, or equal
C4CBF	4.5"	4" T-Baffle	6"	18"	36"	15 in x 15 in, 17 in dia, or equal
LT-1/16	9.25"	10" housing	6"	12"	36"	15 in x 15 in, 17 in dia, or equal
LT-1/32 ³	9.25"	10" housing	6"	12"	36"	15 in x 15 in, 17 in dia, or equal
LT-1/64 ³	9.25"	10" housing	6"	12"	36"	15 in x 15 in, 17 in dia, or equal

Notes:

1. Support case provided by septic tank manufacturer.
2. Other minimum opening sizes or configurations proposed by the septic tank manufacturer shall be approved by the State on a case-by-case basis if documentation is provided showing adequate access is provided for both filter maintenance and pumping the tank outlet compartment.
3. These models can be used in commercial applications. An audio-visual alarm is recommended due to the potential for short service intervals.

II. Use

A septic tank manufacturer may use one or more of these approved effluent filters in one or more of their septic tanks. The septic tank manufacturer must notify the On-Site Water Protection Branch in accordance with Rule .1953 of the septic tanks in which they propose to utilize any of these approved effluent filters, including showing any modifications to the approved septic tank plans which may be necessary to utilize the proposed effluent filter.

III. Sizing

Approved effluent filter models may be used in systems that meet the capacities and wastewater characteristic limitations stated in Table 2 and in accordance with manufacturer's specifications:

Table 2. Filter Sizing Criteria	
Filter Models	Maximum Residential Design Flow (gpd)
C4	1,000
C4C	1,000
C4CBF	1,000
LT-1/16	3,350

LT-1/32	3,000
LT-1/64	2,500

Notes:

1. Sizing based on typical residential strength septic tank effluent meeting the following criteria:
CBOD₅ ≤ 300 mg/l; TSS ≤ 150 mg/l; TKN ≤ 150 mg/l; and Oil & Grease ≤ 25 mg/l.

The effluent filter sizing must be compatible with septic tank sizing requirements based on Rules .1949 and .1952(d). The maximum design flow rate for the effluent filter and the septic tank must be equal to or greater than the maximum design flow rate for the on-site wastewater system.

IV. Installation

The effluent filters and filter support cases shall be assembled and installed in accordance with the effluent filter manufacturer's specifications and applicable rules. The effluent filter case shall be located so that the effluent filter is readily accessible by the operator beneath the access manhole opening and removable by hand from above finished grade, while also providing enough room to allow for pumping of the septic tank outlet compartment.

V. Operation and Maintenance

The effluent filters shall be used and maintained in accordance with effluent filter manufacturer's specifications and applicable laws and rules. Manufacturer-specified procedures shall be followed to minimize the bypass of unfiltered effluent while the effluent filter is being serviced. Debris washed off the effluent filter during servicing must be returned to the septic tank or otherwise handled in accordance with an alternate approved sanitary disposal method.

VI. Literature

The effluent filter manufacturer shall furnish with each effluent filter the following:

1. Literature to be provided by the septic tank manufacturer to the on-site wastewater system installer describing installation procedures.
2. Literature to be provided by the installer to the on-site wastewater system owner/user describing effluent filter and recommended maintenance and servicing procedures.

VII. Maintaining Approval Status

The approval status is governed by Rule .1954(e).