

SECTION 12

USE OF EFFLUENT TREATMENT AND PRE-TREATMENT DEVICES AND METHODS

Septic tank, pump tank and/or grease interceptor tank filters, sand filters, gravel filters, and other devices may be utilized in Williamson County to improve the quality of wastewater effluent in an approved subsurface sewage disposal system.

A. Effluent Filters

Effluent filters (also known as effluent screens) are removable, cleanable (or disposable) devices installed on the outlet piping of tanks for the purpose of retaining solids larger than a specific size and/or modulating effluent flow rate. Typical effluent filter applications approved for use in Williamson County include:

1. Septic tanks
2. Settling tanks
3. Pump tanks
 - (a) Pressure filters (inline)
 - (b) Filter vaults
4. Grease interceptor tanks
5. Other miscellaneous special applications

NOTE: See Section 37 (new Effluent Filter section) for details and requirements associated with the use of tank effluent filters.

B. Special Filters, Screens and/or Tanks/Interceptors/Traps

Some types of commercial or non-residential uses, as well as certain residential situations (e.g., garage floor drains, dog washing stations/areas, etc.), may produce a wastewater containing constituents that could potentially pose a threat to the proper functioning of an on-site wastewater system. Special filters, screens, tanks/interceptors/traps and/or other types of pretreatment components shall be required to mitigate these types of wastewater concerns. Examples of such pretreatment components include, but are not limited to:

1. Special tanks or multiple tanks with internal filters
2. Hair interceptors installed on drain lines
3. Lint filters on discharge pipes of laundry equipment/appliances
4. Solids interceptors installed on drain lines
5. Oil/grease/grit interceptors (or separation tanks) installed on drain lines
6. Screens or grates covering drain openings

NOTE: See Section 36, Subsection B, Part 9 and Appendix 18, Subsection C, Part 9, Subpart (f), as well as Section 37 (new Effluent Filter section), Subsection F, for details and requirements associated with the use of such special filters, screens and/or tanks/interceptors/traps.

C. Advanced Treatment Systems (ATS)

An Advanced Treatment System (ATS) is a secondary treatment device that is used to improve the quality of septic tank effluent before final dispersal into the soil. ATS's approved for use in Williamson County can be classified as follows:

1. Residential Facilities/Uses

Producing domestic strength wastewater only

- (a) Pre-manufactured models with National Sanitation Foundation (NSF) Standard 40 certification
- (b) Engineered, non-proprietary and/or constructed on site systems
 - (1) Sand filters
 - (2) Gravel filters
 - (3) Other

2. Commercial/non-residential Facilities/Uses

Producing domestic strength wastewater, high-strength wastewater, industrial strength wastewater, or other types of wastewater

- (a) Pre-manufactured models
- (b) Engineered , non-proprietary and/or constructed on site systems
 - (1) Sand filters
 - (2) Gravel filters
 - (3) Other

NOTE: See Section 38 (new ATS section) for details and requirements associated with the use of all such advanced treatment systems (ATS).

D. Other Miscellaneous Treatment Devices and Methods

As technology evolves or unique situations arise, miscellaneous treatment devices and methods, other than those specifically listed in these *Regulations*, may be developed or needed to improve the quality of the wastewater effluent dispersed into an approved subsurface sewage disposal system. The use of such might apply to either residential or commercial/non-residential facilities, and to either new or existing systems.

- 1. Treatment devices and methods other than those specifically listed in these *Regulations* may only be used if approved by the Department as meeting accepted engineering practices. The Department will make that determination on an individual, case-by-case basis.
- 2. Installation and maintenance requirements for these other treatment devices, systems or methods, covered in this *Subsection D*, shall be applied as deemed necessary by the Department.
- 3. General examples of other such treatment devices include, but are not limited to, the following:
 - (a) Aerobic bacteria generators (ABG), microbial inoculator generators and other similar devices installed inside existing septic tanks to improve effluent quality as an attempt to remediate or rejuvenate failing, failed, sludged or malfunctioning field line trenches.
 - (b) Disinfection devices such as chlorinators, dechlorinators, ultraviolet irradiation (UV light) units and ozonation units used in conjunction with an ATS device.

The Department may require disinfection devices conform to *NSF/ANSI Standard 46 - Evaluation of Components and Devices Used in Wastewater Treatment Systems*, or provide documented proof of independent third-party equivalent testing/certification.