



Food Service Facility Grease Trap

Fact Sheet

Grease Trap Facts

The most common cause of sewage disposal system failure in food service establishments is the build-up of grease, oils and dissolved food particles in sewer lines and the drain-fields of individual septic systems. Improperly designed and maintained grease traps pose a significant threat to the sanitary operation of sewage disposal systems, shortening the functional life and causing failure. Public sewer lines can also clog with grease which stops the sewage flow. Improper disposal of sewage is a major public health issue and a critical violation of the Food Service Facilities Regulations, COMAR 10.15.03, which may lead to the immediate suspension of a food services operating permit.

Purpose of a Grease Trap

A grease trap looks very much like a septic tank. It is located at the end of the grey-water drain line from the kitchen and food preparation areas. Influent to grease traps is typically hot water and contains extremely high organic loads, including grease, oils, fats and dissolved food particles, as well as detergents. Upon entering the trap the waste water flow slows and cools allowing lighter grease to separate from the waste water and float to the top of the tank. In order to facilitate this cooling and separation process, grease trap tank capacities should be at least 1000 gallons.

Who is Required to Have a Grease Trap?

Any permitted food service establishment whose menu produces grease during food preparation, either through the type of equipment in use or food products being prepared is required to have a grease trap. When a new facility is being designed or planned, an existing facility is being remodeled, or undergoing a significant menu change, a plan review is conducted by the Health Department. If build up of grease in the septic system or public sewer lines serving an existing food service is evident, then the facility is required to upgrade any existing grease trap or install a new grease trap. Older facilities constructed before grease traps were a plan review requirement may also be required to construct a trap if problems are discovered with grease build-up in the public sewer lines or septic systems that serve them.

Grease Management

Successful grease management is largely dependent on the employees of food service facilities. Food service managers should make sure that their employees understand the importance of proper grease management and they do everything possible to prevent expensive problems from occurring. During routine environmental inspections by the St. Mary's County Health Department, the sanitarian will be asking to see grease trap pumping and maintenance records. If the facility cannot provide records to demonstrate routine pumping of the grease trap, it will be listed as an item to be corrected on the inspection report before the follow-up inspection.



Grease Trap Capacity

Grease traps must be located outside of the structure of the food service building in an area easily accessible to routine pumping and maintenance. The waste line from food preparation areas must carry only waste water from sinks, floor drains, dishwasher and pot washing and must discharge directly into a properly designed grease trap. Effluent from the grease trap is discharged into the inlet portion of the individual septic system's septic tank or the public sewer line. The waste from restrooms must discharge directly into the septic tank or public sewer line without passing through the grease trap. Low capacity interior grease interceptors will not be approved for use in St. Mary's County facilities. The exterior grease traps will be sized in accordance with the facilities proposed menu, food preparation procedures and equipment under the following general guideline.

- **Minimum Capacity** of 1000 gallons is required for food service facilities of small to moderate size, with cold hold-to-serve or cook-to-serve menus, no heavy grease producing procedures, and limited seating of no more than 25.
- **Standard Capacity** of 1500 gallons is approved for moderate to large food service facilities with full cook-to-serve menus or complex food preparation procedures, large volume carryout, and with seating capacity between 25 and 150.
- **Large Capacity** of 2000 gallons is required for large food service facilities with full service menu preparation, using preparation procedures that create large quantities of grease, and with seating capacity over 150.

The St Mary's County Metropolitan Commission requires all food serve establishments served by their public sewer system to have an adequately sized grease trap. Any alternative proposal would have to gain approval of the Metropolitan Commission and the St. Mary's County Health Department.

Installing a Grease Trap

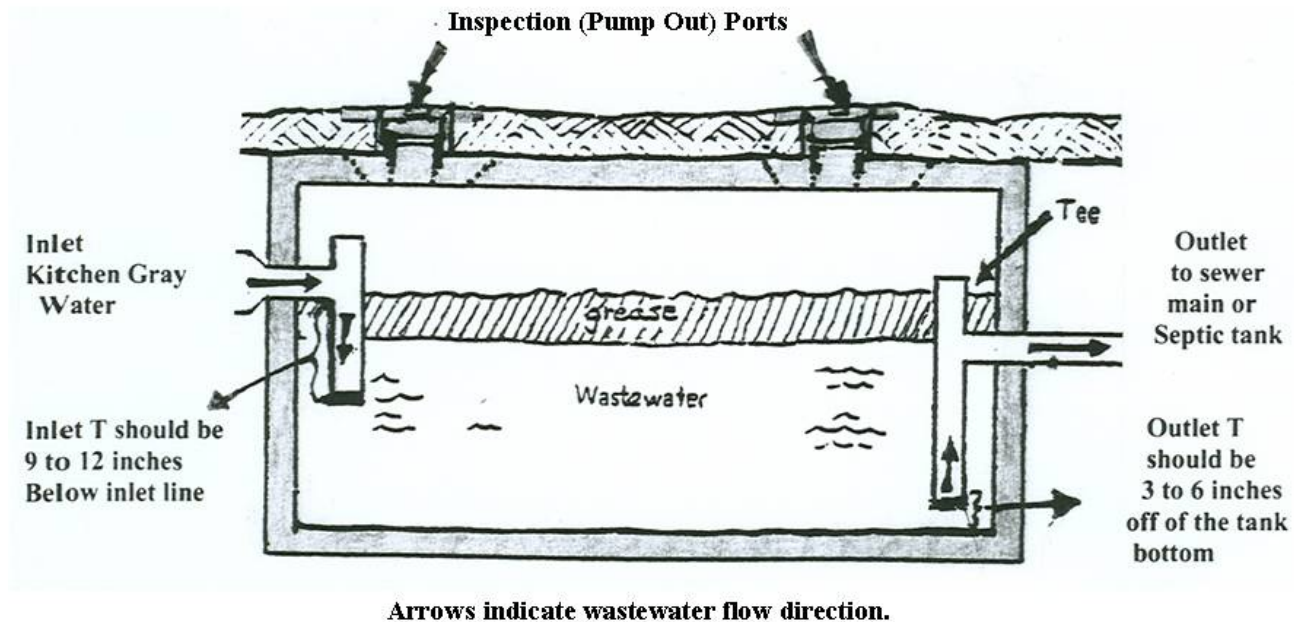
The grease trap must be installed by a licensed septic contractor. The contractor is required to obtain a permit for installation from the St Mary's County Health Department and inspection approval when the job is completed. Copy of the final inspection report for grease traps at facilities served by public water and sewer will be forwarded to the St Mary's County Metropolitan Commission.

General Construction

The grease trap must be a properly sized, top seam, pre-cast, concrete tank with a single chamber. The inspection/pumping ports are required to extend from the top of the tank to the ground surface and must securely prevent leakage from the ground surface. A "T" fitting is attached inside the tank to both the inlet and outlet. On the inlet side, the lower end of the "T" should be 9 to 12 inches below the inlet pipe. On the outlet side, the lower end of the "T" should be 3 to 6 inches off the tank bottom. The tanks interior piping must be securely attached by screws so that they will not be knocked off into the tank. The tank should be gravity fed by the kitchen equipment's waste-water effluent and the length of pipe from the building to the tank should not be excessively long so that grease will not solidify in the line before reaching the grease trap. The line from the outlet should gravity feed into the sewer line or regular septic tank. If the grease trap is subjected to vehicle traffic it must be of load bearing construction. The diagram on the next page provides a description of a properly constructed grease trap.



Diagram of a Properly Constructed Grease Trap



Pumping and Maintenance of a Grease Trap

Without proper maintenance a grease trap, no matter how expertly installed, can not continue to function properly. Bulk grease drained from deep fryers and scraped from grills should be stored in secure drums or bins for pick up by protein recovery companies. That type of bulk grease should not be disposed of down the drains of a food service facility. Grease traps are sized to collect a large quantity of grease and therefore spread out the frequency of required maintenance and pumping. As a standard practice, grease traps should be pumped quarterly (every three months). If a facility wishes to reduce that pumping frequency, they should provide a written best practices plan for grease management to the Health Department, and the St Mary's County Metropolitan Commission if the facility is served by a public sewer system. That grease management plan must detail how grease is controlled in the facility and include a recommended pumping frequency from a licensed septage pumping and hauling contractor, or recommendations from the Metropolitan Commission based on grease trap inspections. It is recommended that the grease trap be checked monthly and the grease thickness measured. This can be carried out with a simple measuring rod. If the grease layer is within two feet of the tank bottom, the tank should be pumped out by a licensed septage pumper-hauler.

For more information...

- St. Mary's County Health Department, Environmental Health Division: 301-475-4321
- St. Mary's County Metropolitan Commission: 301-373-4733