

Peters Township Sanitary Authority

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Grease Traps/Interceptors General Guidelines

2009

OVERVIEW

Grease traps are used to keep fats, oils, and grease (FOG) out of the sanitary sewer system. When FOG enters the waste stream, and ultimately the treatment plant, it creates a variety of problems. It clogs pipes and causes sewage to back up into homes, commercial establishments, and open spaces. As it reaches the plant, grease causes mechanical problems and increases treatment time and costs.

Grease introduced into the sewer system is lost as a valuable resource. When FOG is recycled prior to entering the sewer system, it can be used in a variety of products such as soaps and cosmetics, fertilizer, animal feeds, and munitions.

Peters Township has an ordinance which requires "all non-residential establishments that produce fats and grease" to have a working grease trap installed. This trap shall be cleaned periodically to prevent the discharge of FOG to the sanitary sewer system. It is estimated the 90% of the FOG discharged from a typical food service comes from the 3-bowl sink used for pre-rinsing and washing utensils. The FOG produced by households can be dealt with through routine maintenance of the sewer lines and normal treatment at the wastewater plant.

PTSA has confirmed that all non-residential establishments have complied with the township ordinance by having a working grease trap installed. PTSA is now making routine unannounced visits to these establishments in order to verify that the traps are being cleaned and maintained regularly.

The primary purpose of the Peters Township Sanitary Authority (Authority) Pretreatment Program is to protect the sanitary sewer system and wastewater treatment plants from any adverse impact by the users of our sewer system. This is done mostly by controlling and preventing the introduction of pollutants into the sanitary sewer collection system.

APPLICATION PROCESS:

All food service establishments (FSE's) and other commercial facilities discharging to the Authority's sanitary sewer system must submit a complete "Grease Trap Permit Application" prior to discharge. This ensures that FSE's that may generate FOG will be properly permitted and made aware of any relevant regulations and requirements in order to protect the integrity of our sanitary sewer system. Furthermore, approval must be obtained from the Authority for the installation of any type of pretreatment device including interceptors and traps. Such approval will be contingent upon submission of the "Grease Trap Permit Application", review of plans submitted and inspection of the trap/interceptor installation. Once all requirements of these tasks are satisfied, the Authority will issue a "Grease Trap/Interceptor Operating Permit" if appropriate. The operating permit will outline the permittee's responsibilities and conditions for usage of our sanitary sewer system.

You may contact the Authority at 724-941-6709 for further details. Information may also be found on the Authority's website at <http://www.ptsaonline.org>.

DESIGN GUIDELINES

FSE's shall install grease traps conforming to the Plumbing and Drainage Institute G-101 (PDI G101). The FSE's proposed grease trap and its installation details must be approved by the Authority and submitted on the forms provided. The application for new installations and replacement units must contain the size and type of the grease trap being proposed as well as a floor and plumbing plan showing the location of the grease trap and all fixtures being connected to the trap, as well as dimensions and discharge rates for each fixture. Manufacturers specification sheets will assist in documenting the above.

The Authority reserves the right to require any FSE that generates greases or oils to install a large outdoor grease interceptor where the Authority deems it necessary due to the anticipated volume of FOG generated. Such interceptors shall be designed in general conformance with PDI G-101, and shall provide a minimum detention time of 30 minutes with all fixtures discharging simultaneously. The interceptor shall be of the two-compartment type, have sampling ports as required by the Authority, and shall be water tested in accordance with testing procedures for sanitary sewer manholes.

The use of chemical or biological additives for the cleaning of grease traps or interceptors are prohibited.

FOOD SERVICE ESTABLISHMENTS - GREASE TRAPS & INTERCEPTORS REQUIREMENTS

FSE fixtures that shall be discharged to a grease trap / interceptor:

- Pot sinks
- Pre-rinse sinks
- Any sink into which fats, oils and grease are likely to be introduced
- Soup kettles or similar devices
- Wok stations
- Floor drains or sinks into which kettles may be drained
- Automatic hood wash units
- Dishwashers without pre-rinse sinks
- Any other fixtures or drains that is likely to allow fats, oils and grease to be discharged

Fixtures that shall not be discharged to a grease trap / interceptor

- Hand sinks
- Salad prep sinks
- Ice machine drains
- Toilets & Urinals
- Other similar sanitary fixtures

INSTALLATION OF GREASE INTERCEPTORS

Grease Interceptors shall be:

- Approved and permitted by The Peters Township Sanitary Authority
- Located to be readily and easily accessible for cleaning and inspection at all times
- Installed with the interior inlet piping having a ninety-degree elbow with a minimum of an 18-inch down spout.
- Installed with the outlet side piping of the interceptor supplied with a sanitary-tee with a minimum of an 18-inch down spout.
- Installed with a “two-way” cleanout on both the inlet and outlet sides of the interceptor immediately before and after the interceptor.

The appropriate traffic rated or non-traffic rated cover shall be installed.

Grease Interceptor Sizing Criteria:

Grease Interceptors shall be sized based on Standard PDI-G101, Table 8.3.2 “Procedure for Sizing Grease Interceptors” in the Plumbing Drainage Institute Guide. The Guide is available at: www.pgionline.org.

Grease Trap Sizing:

- 1.) Calculate the capacity of each compartment of the sink in cubic inches:
Length x width x depth=_____ cu. in.
- 2.) Convert the capacity from cubic inches to gallons per minute (GPM):
_____ cu. in. divided 231=_____ GPM
- 3.) Adjust for displacement of ware to be washed:
_____ GPM X .75=_____ GPM
- 4.) Adjust for drainage period: _____ GPM divided by 2 minutes= _____ PDI Size

Result is the flow rate required to drain the sink in two minutes.

Size each fixture individually then add all fixtures to determine the interceptor size.

Example:

- 1.) 12” x 12”x 15”=2,160 cu. In. x 3 compartments = 6,480 cu. In.
- 2.) 6,480 cu. in. divided by 231 = 28 GPM
- 3.) 28 GPM x .75 = 21 GPM
- 4.) 21 GPM/2 minutes=11.5 PGM

A 15 GPM Interceptor would be appropriate.

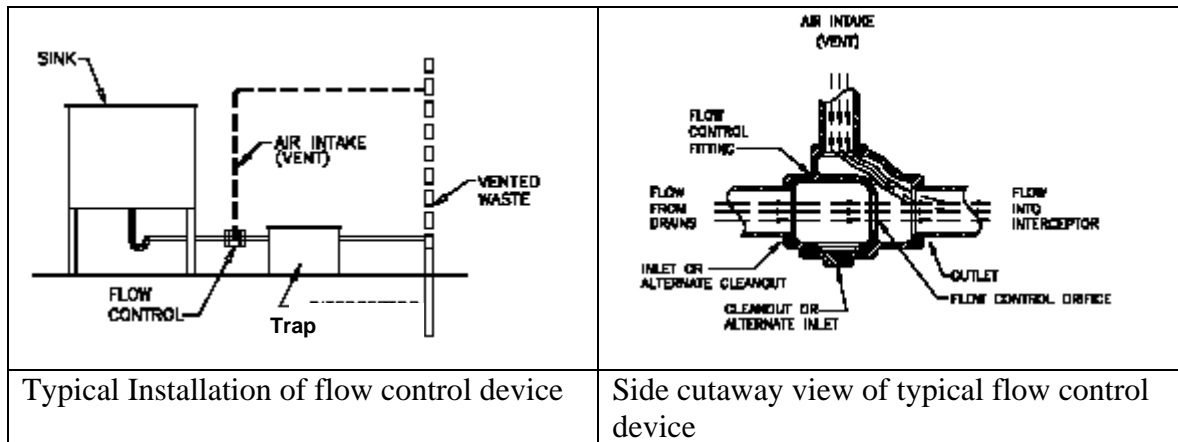
INSTALLATION OF GREASE TRAPS

Interior grease traps shall be allowed only when there are minimal fixtures being used for food preparation. No more than 4 separate fixtures shall be connected to, or discharged into, any one grease trap. Grease traps shall be located as to be readily and easily accessible for cleaning and inspection at all times. The following are examples of those facilities that may request approval to install a grease trap in lieu of a grease interceptor:

Delicatessens, sandwich shops, coffee shops, and pizza take out facilities (only pizza being served), and ice cream parlors. These facilities must have limited preparation of pre-cooked meals/food, minimal cooking, food preparation and where minimal cleanup from food service would take place.

Garbage disposals shall not be discharged to a grease trap without being preceded by a solids interceptor.

A flow restriction valve shall be installed upstream of the grease trap and shall remain accessible for service and inspection. The flow restriction valve shall be properly vented and remain in place at all times.



MAINTENANCE AND CLEANING OF GREASE TRAPS AND INTERCEPTORS

Maintenance of grease interceptors and grease traps shall be the sole responsibility of owner or operator to ensure proper operation in preventing any obstruction, interference or damage to the collection system. It is recommended that only mechanical cleaning take place. **The use of any enzymes, chemicals, or bacteria as a substitute for grease traps or grease trap or interceptor maintenance is prohibited. The addition of emulsifiers into grease removal devices is strictly prohibited.** Decanting or discharging of removed clear wastewater back into the trap or interceptor from which the wastewater was removed is permitted. Care must be taken to separate floatable grease and settled solids and not reintroduce them into the trap or interceptor.

Grease Traps

It is recommended that all grease traps be cleaned at regular intervals based on past cleaning inspections. The sides, bottom, and baffles shall be scraped to remove all solids. After cleaning, clear wastewater removed from the trap may be replaced back into the trap. Contents removed from the interceptor shall be hauled or disposed of off-site in accordance with all County, State, and Local regulations that may apply.

Grease Interceptors

All grease interceptors shall be pumped entirely at 25% total volume of accumulated solids and grease waste. No partial pumping or skimming shall be allowed. The sides, bottom, and baffles shall be scraped to remove all solids. Contents removed from the interceptor shall be hauled and disposed of off-site in accordance with all County, State, and Local regulations that may apply.

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RECORD RETENTION

It is a requirement of the Authority that maintenance records, including pumping records, of grease traps and interceptors be kept on site for a minimum of 2 years.

ENFORCEMENT

Any person, firm, association, company or organization violating any of the provisions of The Authority's Resolutions shall be deemed guilty of a summary offence, and upon conviction thereof, shall be fined an amount not in excess of \$300.00. Each day that such violation is committed or permitted to continue, after notice of violation, shall constitute a separate offense and shall be punishable as such hereunder.