

Section 5.0

FATS, OILS & GREASE (FOG) MANAGEMENT GUIDELINES

Adopted: July 21, 2009

Scope & Purpose:

The purpose of these guidelines is to ensure compliance with the Scottsboro Waterworks, Sewer and Gas Board's (WSG) ***FOG Management Policy***. The accumulation of fats, oil and grease (FOG) within the collection system (sewer lines and pump stations) and treatment works can result in a decreased carrying capacity of sewers due to congealed, cooled grease which coats the inside of the sewer pipes. Once a pipe becomes constricted, the potential for a collection system blockage increases. Collection system blockages may cause sanitary sewer overflows (SSO). SSO's potentially degrade the quality of local receiving waters. FOG blockages may also cause sewer back-ups into homes and businesses. The intent of this policy is to prevent collection system blockages, obstructions, and overflows due to the contribution and accumulation of FOG from Food Service Establishments (FSE), commercial facilities, and industrial facilities. This policy applies to all new construction, tenant improvements, remodels, and existing systems that are in need of upgrading.

DEFINITIONS

Additives: Include but are not limited to products that contain solvents, emulsifiers, surfactants, caustics, acids, enzymes and bacteria.

Exemption: A release from the requirement to install grease control equipment (GCE).

Extensive Remodeling: Modifications made to an existing FSE sufficient to require issuance of a building permit, or the temporary closure of the FSE for building renovation.

Fats, Oils, & Grease (FOG): Organic polar compounds derived from animal and/or plant sources. FOG may be referred to as grease or greases in this section.

Food Service Establishment (FSE): Any establishment, business, facility or user engaged in preparing, serving or making food available for consumption. Single-family residences are not an FSE.

FSE's will be classified as follows:

Class 1: Day Care Facilities, Deli, Ice Cream shops, Coffee Shops, Beverage Bars, Mobile Food Vendors engaged in the sale of cold-cut and micro waved sandwiches/subs with no frying or grilling on site, as defined by North American Industry Classification System (NAICS) 722213.

Class 2: Limited-Service Restaurants - (i.e. Fast Food Facilities) as defined by NAICS 722211 and Caterers as defined by NAICS 722320.

Class 3: Full Service Restaurants - as defined by NAICS 722110.

Class 4: Buffet and Cafeteria Facilities - as defined by NAICS 722212.

Class 5: Institutions (i.e. Schools, Hospitals, Prisons, etc) - as defined by NAICS 722310.

Garbage Disposal: A kitchen appliance designed to grind food particles to a small enough size to dispose to a sink drain.

Grease (Brown): Fats, oils and grease that are discharged to the grease control equipment, or are from kitchen or food prep wastewater.

Grease (Yellow): Fats, oils and grease that has not been in contact or contaminated from other sources (water, wastewater, solid waste, etc) and can be recycled.

Grease Control Equipment (GCE): Devices for separating and retaining FSE wastewater FOG prior to entering the sewer system. The GCE is constructed to separate and trap or hold fats, oils and grease substances from entering the sewer system. GCE should only receive kitchen wastewater. Devices include grease interceptors (normally located outdoors), grease traps (normally located indoors), or other devices approved by WSG.

Grease Interceptor (GI): GCE identified as a large multi-compartment tank, usually 1,000 gallon to 2,000-gallon capacity with proper inlet and outlet T's, and other necessary components, that provides FOG control for a FSE. No sanitary wastewater (black water) line should be connected to the grease interceptor. Grease interceptors will be located outside the FSE.

Grease Trap (GT): GCE identified as an under-the-sink trap, small container with baffles, or a floor trap. The minimum size requirement shall be the equivalent of a 25-gallon per minute/50 pound capacity trap. Grease traps shall have air relief bypass, flow control restrictor, and a vent pipe. No dishwasher or sanitary wastewater (black water) line shall be allowed to be connected to an under-the-sink or floor grease trap.

Grease Recycle Container: A container used for the storage of yellow grease.

Licensed Waste Hauler/Plumber: individuals or entities that are licensed by the Alabama On-site Wastewater Board

Multi-Unit Facility: A single building or facility with multiple separate but adjoining units, each with separate plumbing and possibly other utilities.

NAICS: North American Industry Classification System. The website is found at:
(<http://www.census.gov/epcd/www/naics.html>)

Series: (Grease Interceptors Installed in Series): Grease interceptor tanks that are installed one after another in a row and are connected by plumbing pipe.

Single Service Kitchen: A FSE that does not prepare food onsite (heat and serve only) and which uses only disposable service ware (utensils and dishes).

Tee or T (Influent & Effluent): A T-shaped pipe extending from the ground surface below grade into the grease interceptor to a depth allowing recovery (discharge) of the water layer located under the layer of FOG. Influent & effluent T's are to be made of PVC schedule 40 or equivalent approved material. Influent T's should extend 2/3 of the grease interceptor water depth, and effluent T's should extend to within 12" to 15" of the bottom of the interceptor tank to prevent short-circuiting.

User: Any person that contributes, causes, or permits the contribution or introduction of wastewater or pollutants into the sanitary sewer system, whether intentional or unintentional, and whether direct or indirect.

Water (Black): Wastewater containing human waste, from sanitary fixtures such as toilets and urinals.

Water (Gray): Wastewater other than black water as defined in this section.

5.1 REQUIREMENTS

Grease Control Equipment (GCE) shall be designed and constructed in accordance with the provisions of this FOG Management Policy and/or WSG's Standards and Specifications Manual (see also SD-28 & SD-29).

Minimum acceptable size of GCE for each FSE Classification will be as follows:

Class 1: Deli, Ice Cream shops, Beverage Bars, Coffee Shops, Mobile Food Vendors
minimum requirement - 25 gallons per minute/50 pound Grease Trap (GT).

Class 2: Limited-Service Restaurants / Caterers 1,000 gallon Grease Interceptor

Class 3: Full Service Restaurants- 1,000 gallon Grease Interceptor

Class 4: Buffet and Cafeteria Facilities- 1,500 gallon Grease Interceptor

Class 5: Institutions (Schools, Hospitals, Prisons, etc)- 2,000 gallon Grease Interceptor
or two 1000-gallon Grease Interceptors installed in series.

WSG will review GCE sizing information received from the FSE's engineer, architect or contractor. WSG will make a decision to approve, or require additional GCE volume, based on the type of FSE, the number of fixture units, and additional calculations. Grease interceptor capacity should not exceed 2,000 gallons for each interceptor tank. In the event that the grease interceptor calculated capacity needs to exceed 2,000 gallons, the FSE shall install an additional interceptor of the appropriate size. If additional interceptors are required, they shall be installed in series.

Grease interceptors that are installed in series shall be installed in such a manner to ensure positive flow between the tanks at all times. Therefore, tanks shall be installed so that the inlet invert of each successive tank shall be a minimum of 2-inches below the outlet invert of the preceding tank.

Grease Control Equipment (GCE) shall not be located in food preparation areas.

Grease interceptors that are installed in series shall include adaptors, gaskets or flexible transition couplings of minimum of schedule 40 PVC pipe.

Property service connections shall be sized based on fixture units with a minimum size of a 4-inch connection.

All new FSE construction and upgrades having a GCE requirement shall be constructed to include a sample monitoring station designed and approved by WSG.

If an existing undersized GCE is structurally sound and installed properly, then, in lieu of replacing it with a larger unit, the FSE may choose to install an additional unit in series with the existing unit to satisfy the total size capacity required.

New FSE's, as well as existing facilities that are undergoing extensive remodeling shall install and maintain at a minimum, an approved 1,000-gallon grease interceptor located outside the FSE building.

New construction of FSE's shall have separate sanitary (restroom) and kitchen process lines. The kitchen process lines shall be plumbed to appropriately sized GCE. Kitchen process lines and sanitary lines may combine prior to entering the public sewer; however the lines cannot be combined until after the GCE. Sanitary wastewater, or black water, cannot be connected to GCE.

When an existing building and/or building's plumbing is being renovated and the facility is a FSE, internal plumbing shall be reconstructed to separate sanitary (restroom) flow from kitchen process flow. Sanitary flow and kitchen process discharges shall be approved separately by WSG and shall discharge from the building separately. The kitchen process line(s) shall be plumbed to appropriately sized GCE. Kitchen process lines and sanitary lines may combine prior to entering the public sewer; however the lines cannot be combined until after the GCE.

New multi-unit facility, or new strip mall facility, owners shall contact WSG prior to conducting private plumbing work at the multi-unit facility site. Multi-unit facility owners, or their designated contractor, shall have plans for separate private wastewater lines for kitchen and sanitary wastewater for each individual unit. In addition, the plans shall identify stub-out locations to accommodate a minimum 1,000-gallon grease interceptor for each unit of the multi-unit facility. New multi-unit facility, or new strip mall facility owners shall consider suitable physical property space and sewer gradient that will be conducive to the installation of an exterior, in-ground GI when determining the building location.

WSG's Management will review plans for FSE in classes 1 through 5 as part of the building permit acquisition process.

FSE owners or their designee shall submit 3 sets of FSE facility plans to WSG for review and approval.

Facility plans shall include the following sheets: a floor plan detailing kitchen prep equipment and showing how greasy waste lines discharge to GCE, plumbing sheets, and a GCE specification sheets.

All surface water must drain away from the GCE to exclude rainfall from the sewer system.

Traffic locations installations require the top of the interceptor to be below the pavement. Inspection, maintenance, and cleaning manholes must be brought to grade with frames and covers suitable for traffic loads. Plumbing sheets shall include identification of all cooking and food preparation equipment (i.e. fryers, grills, woks, etc); the number and size of dishwashers, sinks, floor drains, and other plumbing fixtures; greasy waste bearing plumbing lines, the location of GCE, and specifications for GCE. The discharge from the following fixtures shall be plumbed to the GCE: all sinks (3-compartment, vegetable prep, mop, etc), dishwashers, floor drains in food preparation and storage areas, garbage disposals, and other fixtures through which grease may be discharged such as woks and soup ladles.

WSG's personnel will review the plumbing plans and GCE sizing; and approve, or make changes as necessary to aid in the protection of a FOG discharge from the FSE.

If the plans are approved by WSG, a First Release will be issued to the FSE.

Personnel from WSG will inspect the GCE. Call 256-574-1515 at least forty-eight (48) hours prior to installation to schedule the inspection. All components of the GCE must be visually inspected before any component is covered. WSG will not accept GCE that has not been inspected and approved by WSG.

If the installed GCE is approved by WSG, a Final Release will be issued to the FSE.

Coffee shops that brew coffee on the premises for consumption and bakeries will not be granted exemptions due to the pH of the wastewater discharged.

Substandard GCE - In the event an existing FSE's GCE is deemed by WSG to be either undersized or substandard in design, the FSE owner(s) will be notified in writing by WSG of the deficiencies and required improvements, and given a compliance deadline not to exceed six (6) months to comply.

Prohibitions

FSE's shall not contribute or cause to be contributed into the WSG collection system the following:

- * Hot water running continuously through GCE;
- * Discharge of concentrated alkaline or acidic solutions into GCE;
- * Discharge of concentrated detergents into GCE.

5.2 Certified Hauler/Plumber Program

Participating haulers/plumbers shall:

- Be permitted by the Alabama On-site Wastewater Board to haul waste in the State of Alabama.
- Agree to provide information on GCE to WSG in a timely manner.
- Agree to completely evacuate FOG from GCE when servicing such GCE at FSE's. If the volume of the GCE is greater than the tanker capacity, the hauler/plumber agrees to provide additional tankers so that the GCE is fully evacuated within a 24-hour period.
- Agree to never return gray water removed from GCE to the GCE under any circumstances
- Agree to provide information relative to FOG removed at FSE's in format required by WSG
- Dispose of FOG waste at a facility permitted and authorized to receive such waste in accordance with applicable federal, state and local laws and regulations.
- Perform GCE maintenance in accordance with these guidelines.

WSG will provide a listing of all approved haulers/plumbers to FSE's

FSE's under WSG's jurisdiction must have their grease interceptor or grease trap inspected annually to ensure the GCE is in proper working condition. If a grease interceptor or grease trap fails the certification requirement, then a corrective action response is required from the FSE owner or authorized representative by a date specified in the corrective action response.

* Failure of a Grease Interceptor Certification, or Grease Trap Certification:

The FSE owner or authorized representative is responsible for including detailed Corrective Action Response information on the grease interceptor inspection. At a minimum, the Corrective Action Response information must include the reason for the failed certification, what corrective action will be taken to correct the problem, and the date the corrective action will be completed.

FSE's with GCE shall maintain a log of the pumping/cleaning maintenance activities performed for each GCE on the premises. GCE maintenance records shall include, at a minimum, the date of cleaning/maintenance, company or person conducting the cleaning/maintenance, invoice number of company or person conducting the cleaning/maintenance, FSE name and address, and specific volume of grease wastewater removed from the GCE. Manifests/trip tickets shall be maintained for a period of 3 years to substantiate the maintenance log. However, manifests alone will not meet the requirement. FSE's shall provide compliance reports as requested by WSG.

GCE maintenance records shall be available at the FSE premises so they can be provided to WSG personnel or their representative. The FSE shall maintain GCE maintenance records onsite for three (3) years.

An owner, manager or designated employee of the FSE shall supervise the GCE cleaning/maintenance activities and shall be physically present and observe the entire operation each time cleaning/maintenance is conducted.

Each GCE shall be fully evacuated (complete pump out of GI contents) unless the volume is greater than the tank capacity of the pumper vehicle in which case the hauler shall arrange for additional transportation capacity so that the GCE is fully evacuated within a 24-hour period.

The return of gray water back into the GCE from which the waste was removed is prohibited.

Waste removed from GCE shall be disposed of at a facility permitted and authorized to receive such waste in accordance with applicable federal, state and local laws and regulations. Pumped waste shall not be discharged to a private or public sewer.

FSE's shall observe Best Management Practices (BMP's) for controlling the discharge of FOG from their facility.

5.3 Grease Interceptor (GI) Cleaning/Maintenance Requirements

Grease interceptors must be pumped-in-full when the total accumulations of surface FOG (including floating solids) and settled solids reaches twenty-five percent (25%) of the grease interceptor's overall liquid depth. This criterion is referred to as the 25 Percent Rule. At no time, shall the cleaning frequency of the grease interceptor exceed 90 days, unless approved by WSG. Some existing FSE's in Class 2 through 5 will need to consider a 30 day pumping frequency or a 60 day pumping frequency to meet the 25 Percent Rule requirement.

Partial pump of interceptor contents or on-site pump & treatment of GI contents will not be allowed due to reintroduction of fats, oils and grease to the interceptor and pursuant to the Code Federal Regulation 40 CFR403.5 (b)(8), which states specific prohibitions. In addition, the following pollutants shall not be introduced into a Public Owned Treatment Works (POTW): Any trucked or hauled pollutants, except at discharge points designated by the POTW.

Special pumping frequency approval may be granted by WSG, on a case-by-case basis, for unusual circumstances.

All FSE's in the WSG jurisdiction must have a certified grease waste hauler or plumber complete a grease interceptor certification annually. The grease interceptor certification must be signed by the FSE owner or authorized representative. If a grease interceptor certification fails, then the FSE owner or authorized representative must provide a corrective action response to WSG. The corrective action response will identify the reason for the failure, what corrective action will be taken to correct the problem, and the date the corrective action will be completed.

Grease interceptor effluent-T shall be inspected during cleaning and maintenance and the condition noted by the grease waste hauler's company or individual conducting the maintenance. Effluent-T's that are loose, defective, or not attached must be repaired or replaced immediately.

5.4 Grease Trap (GT) Cleaning/Maintenance Requirements

GT's shall be cleaned of complete fats, oils, and grease and food solids at a minimum of every two (2) weeks, unless more or less cleaning frequency is authorized by WSG. If the FOG and food solids content of the grease trap is greater than 25% of the water depth capacity of the grease trap, then the grease trap shall be cleaned every week, or as frequently as needed to prevent 25% of capacity being occupied with FOG and food solids.

FSE's in the WSG jurisdiction shall have a WSG certified grease waste hauler or plumber complete a grease trap certification annually. The grease trap certification shall be signed by the FSE owner or authorized representative. If a grease trap certification fails, then the FSE owner or authorized representative shall provide a corrective action response to WSG. The corrective action response shall identify the reason for the failure, what corrective action will be taken to correct the problem, and the date the corrective action will be completed.

During cleaning of the grease trap, the flow restrictor shall be checked to ensure it is attached and operational.

Grease Trap waste shall be sealed or placed in a container to prevent leachate from leaking, and then disposed of properly. Disposal of grease trap waste into a sanitary sewer service line or manhole is prohibited.

Grease Trap waste shall not be mixed with yellow grease in the grease recycle container.

5.5 Additives

Additives are prohibited for use as grease management and control

Additives include but are not limited to products that contain solvents, emulsifiers, surfactants, caustics, acids, enzymes and bacteria.

If WSG identifies an FSE that is using additives and is contributing FOG to the WSG sewer system, or has caused any interference to the sewer system, the FSE shall immediately stop use of the additive and shall be subject to enforcement action as described in this policy.

At no time shall additives be used just prior to under-the-sink or floor grease traps.

The use of additives is prohibited with the following exceptions:

Additives may be used to clean the FSE drain lines but only in such quantities that it will not cause fats, oils and grease to be discharged from the GCE to the sewer system, or cause temporary breakdown of FOG that will later re-congeal in the downstream sewer system, if the product used can be proven to contain 100% bacteria, with no other additives.

Approval of the use of the product must come from WSG, and the FSE must submit a full disclosure Material Safety Data Sheet and certified sample results from the manufacturer of the product.

The use of approved additives shall in no way be considered as a substitution to the maintenance procedures required per this policy.

Right of Entry for Inspection and Monitoring

WSG shall have the right to enter the premises of FSE's to determine whether the FSE is complying with the requirements of this policy and/or Wastewater Discharge Regulations. FSE's shall allow WSG personnel full access to all parts of the premises for the purpose of inspection, monitoring, and/or records examination. Unreasonable delays in allowing WSG personnel access to the FSE premises shall be a violation of this policy and the Wastewater Discharge Regulations.

WSG may require that the FSE install monitoring or additional pretreatment equipment deemed necessary for compliance with this policy and/or the Wastewater Discharge Regulations.

5.6 Enforcement Action

Enforcement action may result against a FSE for instances that include, but is not limited to the following:

- Failure to clean or pump grease control equipment,
- Failure to maintain grease control equipment including inspection and installation of properly functioning effluent-T and baffles,
- Failure to install grease control equipment,
- Failure to control FOG discharge from the FSE,
- Contributing to a sewer line blockage or obstruction,
- Contributing to a Sanitary Sewer Overflow,
- Use of additives in such quantities so that FOG is pushed downstream of the FSE.

Enforcement actions may include the following:

- Requirement of the Food Service Establishment (FSE) to pay all expenses associated with corrective action taken by WSG to clear blockages caused by the failure of the grease control equipment or the failure of the FSE to properly maintain the grease control equipment,
- Termination of all utility services provided by WSG.

**Scottsboro Waterworks, Sewer and Gas Board
FOG Management Policy
Fats, Oil, and Grease Interceptor User Compliance Report**

User Information

Business Name: _____
 Physical Address: _____
 Contact Person/Title: _____
 Phone Number: _____ Fax Number: _____

Type of Facility

- | | | |
|--|--|--------------------------------------|
| <input type="checkbox"/> General Restaurant | <input type="checkbox"/> Fast Food Restaurant | <input type="checkbox"/> Meat Cutter |
| <input type="checkbox"/> Commercial Food Preparation | <input type="checkbox"/> Institutional Facility | <input type="checkbox"/> Deli |
| <input type="checkbox"/> Caterer | <input type="checkbox"/> Multi-Family Apartments | <input type="checkbox"/> Bakery |
| <input type="checkbox"/> Other: _____ | | |

Type of Grease Control Equipment (GCE)

- | | | |
|---|---|------------------------------------|
| <input type="checkbox"/> Trap (Indoor access) | <input type="checkbox"/> Interceptor (Outdoor access) | <input type="checkbox"/> Separator |
| <input type="checkbox"/> Common Interceptor | <input type="checkbox"/> Combination of Devices | <input type="checkbox"/> Screens |
| <input type="checkbox"/> Other: _____ <input type="checkbox"/> None | | |

Waste Hauler/Pumper Information

List Company Name, Invoice Number, and Date of the last six times your grease control equipment was pumped out or cleaned.

Hauler/Pumper Company Name	Invoice Number	Date
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

I certify that the above information is accurate and that the Grease Control Equipment was pumped out and cleaned by the pumper/hauler of record on the date as stated.

User Signature: _____ Date: _____