Frequently Asked Fats, Oils, and Grease Questions by Food Service Establishments

What is FOG?

FOG stands for "Fats, Oils, and Grease" and is found in your kitchen. FOG is any combination of animal fats and/or vegetable oils that are used to prepare food, or are found in food. The main contribution of FOG is from discharge of used grease from cooking processes. Many of the foods we consume contain FOG; these include meats, sauces, salad dressings, deep-fried dishes, cookies, pastries, butter and many others. Generally, food scraps washed down the drain also contribute to FOG related stoppages in your plumbing and the city sewers.

What is the difference between fats, oils, and grease?

I believe we know what fats are. Fats are highly specialized animal tissue deposited under the skin, around organs or deposited in the meat. On the other hand, the terms oils and grease are often used interchangeably, but they are very different substances. Oils, such as vegetable oil, never turn to a solid at room temperature. Grease is the solid white residue left over in the cooled pan after frying meat such as bacon.

What is grease control equipment (GCE)?

Grease control equipment is a device that is designed and constructed for separating and retaining food service establishments' wastewater fats, oils, and grease prior to entering the City of Dothan's sanitary sewer system. GCE includes gravity grease interceptors, hydro-mechanical grease interceptors (grease traps), or other FOG remediation equipment approved by the City. All GCE must be approved by the City.

What does FSE stand for?

FSE stands for food service establishment and is defined as any establishment, business or facility engaged in preparing, serving or making food available for consumption. Single family residences are not considered a FSE; however, multi-residential facilities may be considered a FSE at the discretion of the Planning and Development Director or Building Official or their designee.

What determines the sizing of grease control equipment?

The minimum sizing of grease control equipment is generally determined by the classification of the FSE. FSEs are classed by the FOG Program as follows:

Class 1: Delis - engaged in the sale of salads, cold cuts and microwaved/convection oven warmed sandwiches/subs with no frying or grilling on site, use of precooked meats, utilization of disposable serving ware with very limited culinary washing, Meat Markets with meat preparation such as slicing and grinding, etc., Coffee Shops (small), Ice Cream Shops, Frozen Yogurt Shops, Retail Bakeries with no on premise frying or preparation of other non-bakery foods, Doughnut Shops with baking only, Beverage bars with limited on premise food preparation that can be classed as a deli, Day Care facilities (minimum classification - depending on menus, food preparation, culinary cleaning, and number of meals served), Religious Organizations (minimum classification - depending on menus, food preparation, culinary cleaning, number of meals served, and frequency meals are served), and Mobile Food Vendors.

Class 2: Limited Service Restaurants (aka fast food facilities, drive-in, carry-out), Day Care facilities (maximum classification - depending on menus, food preparation, culinary cleaning, number of meals served, and frequency meals are served), Religious Organizations (maximum classifications - depending on menus, food preparation, culinary cleaning, number of meals served, and frequency meals are served), Full Service Restaurants (minimum classification - seating capacity less than 65), Buffet and Cafeteria (minimum classification - seating capacity less than 65), Doughnut Shops with on premise frying, Coffee Shops (large), Caterers, Convenience Stores with on premise frying, Supermarket/Grocery Stores with on premise frying.

Class 3: Full Service Restaurants (maximum classification - seating capacity greater than 65).

Class 4: Buffet and Cafeteria Facilities (maximum classification - seating capacity greater than 65).

Class 5: Institutions (Schools, Hospitals, Nursing Homes, Prisons, etc.).

Minimum acceptable sizing of grease control equipment for each FSE classification will be as follows:

Class 1: 20-gpm/40 pound grease trap (hydro-mechanical grease interceptor or HGI)

Class 2: 1,000-gallon gravity grease interceptor (GGI)

Class 3: 1,500-gallon gravity grease interceptor (GGI)

Class 4: 2,000-gallon gravity grease interceptor (GGI)

Class 5: 2,000-gallon gravity grease interceptor (GGI)

What is a hydro-mechanical grease interceptor?

These are generally identified as an "under the sink" or "in the floor" grease trap which is a small container or tank with baffles designed for inside installation at kitchen fixtures and appliances, although they are sometimes installed adjacent to the kitchen and outside the building either above or below the ground. These small containers built into the wastewater piping a short distance from the fixtures they serve are designed to capture the FOG and solids in the wastewater. All grease traps shall have an approved flow control device.

What is a flow control device and why am I required to have one installed on a hydro-mechanical grease interceptor (HGI)?

A flow control device is an integral part of a hydro-mechanical grease interceptor (grease trap) installed on the inlet side that controls the wastewater flow through the tank and entrains air bubbles in the wastewater stream via the vent to facilitate FOG removal. Thus the flow control device is required to facilitate FOG removal and to control the flow through the tank, which allows sufficient time for the separation of FOG and solids from the wastewater stream.

What is a gravity grease interceptor (GGI)?

A gravity grease interceptor (GGI) is grease control equipment identified as a large, in-ground tank, usually 1000-gallons or larger capacity, which provides FOG control for a FSE. All newly installed GGIs must be manufactured by a City approved manufacturer and installed to the City's installation specifications.

Why must I have my grease control equipment certified annually?

All grease control equipment must be inspected and certified at least annually in order to ensure proper functioning of the equipment. Only a City of Dothan GCE certified grease waste hauler or GCE certified licensed plumber may be used for the inspection and certification. Completed certification forms (Gravity Grease Interceptor Certification FORM A or Grease Trap Certification Form B) must be completed and signed by the City GCE certified grease waste hauler or GCE certified licensed plumber, signed by the FSE owner or authorized representative, and submitted to the City FOG Program Coordinator by December 31 of each year.

How long does an FSE have to keep records?

FSEs are required to keep the following records a minimum of three years:

- Maintenance records including cleaning, noted GCE deficiencies, and repairs
- Manifests – if FOG laden wastewater from the GCE is hauled off site
- GCE certification forms (Form A or Form B), whichever are used
- For FSEs with GGIs - a "FSE Gravity Grease Interceptor Self-Monitoring Checklist" Form G
- For FSEs with hydro-mechanical grease interceptors (small grease traps) - "FSE Grease Trap Self-Monitoring Checklist" Form F

What is the difference between yellow grease and brown grease?

Yellow grease is FOG that has not been in contact or contaminated from other sources (water, wastewater, solid waste, etc.) and can be recycled. Most yellow grease is used fryer cooking oil. Yellow grease is normally stored in a grease recycle bin.

Brown grease is FOG that is discharged to the grease control equipment. Brown grease can be discharged from kitchen fixtures and appliances (i.e. 3-compartment sinks, pre-rinse sinks, automatic dishwashing machines, mop sinks, floor drains, water cooled wok stoves, soup kettles, etc.) or other locations where grease has been contaminated in some fashion.

Why must I clean my GCE so often?

Studies have shown that when greater than 25% of the grease control equipment's capacity is occupied by FOG and food solids, appreciable quantities of FOG and solids are discharged. Therefore, GCE must be carefully monitored and cleaned as frequently as needed to prevent greater than 25% capacity being occupied with FOG and solids. This is referred to as the 25% Rule.

Hydro-mechanical grease interceptors are required to be cleaned at a minimum of every 30 days or as frequently as needed to meet the 25% Rule.

Gravity grease interceptors are required to be cleaned every 90 days or as frequently as needed to meet the 25% Rule. Refer to the "FOG Program FSE Employee Training" power point presentation for additional information.

What problems can FOG cause?

There is quite an extensive list of potential problems from FOG accumulations in plumbing and sewer system. FOG can cause: sewer capacity reduction, increased maintenance costs for businesses and the city, shortened infrastructure lifespan, blockages, backups, sanitary sewer overflows, fines, facility closures, loss of business, expensive repairs, vermin, wastewater treatment plant upsets, environmental damage, odor, human health hazards.....

FOG has a negative impact on wastewater collection and treatment systems. Many wastewater collection system blockages can be traced to FOG. Blockages in the wastewater collection system are serious, causing sanitary sewer overflows, or sewage backups in homes and businesses.

Large amounts of FOG in wastewater cause trouble in the collection system pipes. It decreases pipe capacity and, therefore, requires that piping systems be cleaned more often and/or some piping be replaced sooner than otherwise expected, all at an added expense. FOG also hampers effective treatment at the wastewater treatment plant. In a liquefied form, FOG may

not appear harmful. But, as the liquid cools, the FOG congeals and creates thick grease mats on the surface of settling tanks, digesters, and other treatment structures at the wastewater treatment plant. FOG problems at the plant decrease treatment efficiency, increase operating costs, cause upsets, and can potentially cause interference and pass-through events (under treated wastewater discharges to the body of water which receives the treated wastewater from the treatment plant).