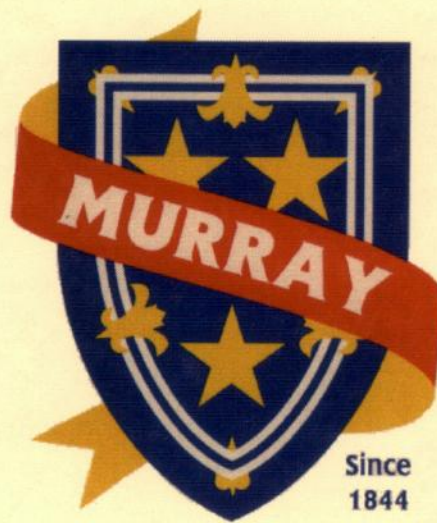


**FOG (FATS, OILS, & GREASE)
PROGRAM**



**MURRAY WATER & WASTEWATER SYSTEM
200 ANDRUS DRIVE
MURRAY, KY**

2012

FOG (Fats, Oils & Grease) Program

Definitions.

1. Additives: Include but are not limited to products that contain solvents, emulsifiers, surfactants, caustics, acids, enzymes and bacteria.
2. 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.
3. 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.
4. 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 a FSE. FSEs will be classified as follows:

Class 1: Deli: engaged in the sale of cold-cut and microwaved sandwiched/subs with no frying or grilling on site; Ice Cream shops and beverage bars as defined by North American Industry Classification System (NAICS) 722130 with the exception of coffee shops which brew coffee on the premises; Mobile Food Vendors as defined by NAICS 722330

Class 2: Limited-Service Restaurants: (i.e. Fast Food Facilities) as defined by NAICS 722211 and Caterers as defined by NAICS 722310

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

Class 4: Buffet and Cafeteria Facilities: as defined by NAICS 722122

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

5. Exemption: A release from the requirement to install grease control equipment (GCE). Exemptions are approved by Murray Water System based on responses to questions on the Murray Water System Request for Exemption form.
6. Garbage Disposal: A kitchen appliance designed to grind food particles to a small enough size to dispose to a sink drain.

7. Grease (Brown): Fats, oils and grease that is discharged to the grease control equipment, or is from kitchen or food prep wastewater.
8. 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.
9. Grease Control Equipment (GCE): Devices for separating and retaining FSE wastewater FOG prior to entering the Murray Water System sewer system. The GCE is constructed to separate and trap or hold fats, oils and grease substances from enter the Murray Water System sewer system. GCE should only receive kitchen wastewater. Devices include grease interceptors, grease traps, or other devices approved by Murray Water System.
10. 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.
11. Grease Trap (GT): GCE identified as an "under the sink" trap, a small container with baffles, or a floor trap. For a FSE approved to install a grease trap, the minimum size requirement is the equivalent of a 35-gallon per minute/70 pound capacity trap. Grease traps shall have flow control restrictor and a vent pipe. No dishwasher, or sanitary wastewater (black water) line shall be connected to an "under the sink" or floor grease trap.
12. Grease Recycle Container: A container used for the storage of yellow grease.
13. Multi-Unit Facility: A single building or facility with multiple separate but adjoining units, each with separate plumbing and possibly other facilities.
14. NAICS: North American Industry Classification System. The website is found at <http://www.census.gov/epcd/www/naics.html>.
15. Series: (Grease Interceptors Installed in Series): Grease interceptor tanks are installed one after another in a row and are connected by plumbing pipe.

16. 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).

17. 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 and effluent T's are recommended to be made of PVC-schedule 40 or equivalent 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.

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

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

FOG (Fats, Oils & Grease) Program

Fats, Oils and Grease Traps and Interceptors

Prohibited Acts: It is a violation of this FOG Program, Fats, Oils, and Grease to introduce into the City of Murray Sewer collection system, or wastewater treatment facilities, any solid or viscous substance(s) including, but not limited to: fats, oils, grease, waste food, garbage with particles greater than one-half inch (1/2") in any dimensions, paunch manure, bones, hair, hides, flushings, entrails, whole blood, feathers, ashes, cinders, sand, spent lime, stone or marble, dust, metal, glass, straw shavings, waste paper, wood plastics, mud, or any other substance, (hereinafter referred to as "FOG") whether when combined with, or separate from other influent in the sewer collection system, causes or contributes to the stoppage or reduction of flow of the sewer collection system, or other interference with the operation of the wastewater treatment facilities of the City of Murray. For health reasons this shall include dumping of grease or any food particles into dumpster or any other trash containers. The use of degreasing or line cleaning products is prohibited.

Violations and Enforcement Action

1. Violations of this FOG program include, but are not limited to, failure to clean or pump grease control equipment, failure to maintain grease control equipment including installation of properly functioning effluent-T and baffles, failure to install grease control equipment, failure to control FOG discharge from the FSE, failure to certify the grease interceptor or trap, being responsible for sewer line obstruction, being responsible for a sanitary sewer overflow, and using additives so that FOG is diluted or pushed downstream of the FSE.
2. Whenever the City determines that a grease interceptor or trap is in need of installation, pumping, repairs, maintenance or replacement, a noncompliance notification will be issued stating the nature of the violation(s) and timeframe for corrective measures.
3. If the facility fails to initiate action in response to a noncompliance notification a second notice will be issued and additional fees assessed. Fee may include costs associated with service calls for sewer line blockages, line cleaning, camera trucks, line and pump repairs, including all labor, material and equipment. Further non-compliance will result in the discontinuance of the facility's water service.
4. Immediate discontinuance of water may be requested by the City of Murray Water and Wastewater if the facility presents an imminent endangerment to the health or welfare of persons or to the public or the environment, or causes stoppages or excessive maintenance to the sanitary sewer system, cause significant interference with the wastewater treatment plant, or cause the City to violate any condition of its NPDES permit. Service shall be reinstated when such conditions have been eliminated as determined by the City.

5. If inspections and field investigations determine that any fats, oils, and grease interference or blockage in the sewer system, a sewage pumping station, or the wastewater treatment plant is caused by a particular food service establishment, then that food service establishment shall reimburse the City for all labor, equipment, supplies, and disposal costs incurred by the City to clean the interference or blockage. The charges will be added to the FSEs water/wastewater bill. Failure to reimburse the City may result in termination of water services.

Fats, Oils and Grease (FOG), Waste Food and Sand Interceptors. FOG, and/or sand interception equipment shall be provided when, they are necessary for the proper handling of liquid wastes containing FOG, any flammable wastes, food waste, sand, soil and solids in excessive amounts which impact the flow of the sewer collection system. All FOG interception equipment must meet with the requirements of the City of Murray FOG Program and other requirements described below. {FOG interception equipment shall be required for any single family residence or multi-family that may cause problems with City of Murray collection system. All FOG interception equipment shall be located so as to be readily and easily accessible for cleaning and inspection.}

New Construction, or Building Use Change That Requires Building Permit and Renovation. As a part of the approval process and as a condition precedent to the issuance of a building permit, all proposed new construction of, and/or renovation of, restaurants, cafeterias, hotels, motels, hospitals, nursing homes, schools, grocery stores, jails, churches, camps, caterers, manufacturing plants and all other sewer users who discharge applicable waste shall submit a FOG control plan to the Building Codes Inspector that will effectively control the discharge of FOG into the sewer collection system. It is a violation of this program to construct or renovate a building listed above without the required approval. Each day the sewer user actually uses a building as a restaurant, cafeteria, hotel, motel, hospital, nursing home, school, grocery store, jail, church, caterer, manufacturing plant and any other sewer user who discharge applicable waste without duly approved FOG control equipment, constitutes a separate violation. It is a violation of the Regulation of Sewer Use to fail to clean, service and maintain FOG interception equipment after it has been installed. The Building Codes inspector should give the contractor a copy of the City of Murray FOG Program a guideline for all new businesses that prepare any type of foods. All new businesses that prepare any type of foods shall follow Kentucky Plumbing Code for sizing of disposal systems. A diagram of grease trap tank will be included in Fog Program (per City specs.).

Existing Structures: All existing restaurants, cafeterias, hotels, motels, hospitals, nursing homes, schools, grocery stores, prisons, jails, churches, camps, caterers, manufacturing plants and any other sewer user, who has currently existing FOG interception equipment, shall maintain the FOG interception equipment, through proper cleaning, servicing, and maintenance, in such a manner so as to prohibit excessive loading, plugging damage or potential damage to structures or equipment in

the sewer collection system. The Director of Public Works and or his designee is authorized and empowered to enter onto the premises of any sewer user, during normal business hours, for the purpose of inspecting the cleaning, service and maintenance of the FOG interception equipment. Failure to properly maintain or clean the FOG interception equipment will be deemed to constitute a prohibited as determined by the Pretreatment Coordinator. Owners whose interceptors are deemed to be ineffective may be required to change the cleaning frequency or to increase the size of the interceptor. All existing structures that have current FOG equipment must have all in-ground tanks cleaned once per month. Once per month is minimum requirements for cleaning in-ground tanks. All under sink grease traps must be cleaned monthly. All traps that are cleaned must have a manifest for each location. The manifest must be signed and dated by the owners with the disposal location for grease products included on manifest.

Existing Structures (No Existing FOG Interception Equipment). All existing restaurants, cafeterias, hotels, motels, hospitals, nursing homes, schools, grocery stores, jails, churches, camps, caterers, manufacturing plants and any other sewer user, who discharge applicable waste and who do not have installed FOG interception equipment, shall be required to submit a plan for control of FOG within ninety (90) days of receipt of notice from the Director of Public Works that FOG is causing excessive loading, plugging, damage, impeding or stopping the flows of the sewer collection system or is causing potential problems to structures or equipment in the sewer collection system. Failure to timely submit a FOG control plan shall constitute a separate violation of this Ordinance. Existing structures must install a size 70 pound under sink grease trap which is the minimum. This size may change at the discretion of the Director of Public Works.

After approval of the FOG control plan by Director of Public Works/Building Code Officer, the sewer user must:

- (A) Implement the plan within a reasonable time. The sewer user and Director shall agree in writing upon the time table for implementation of the FOG plan; and
- (B) Clean, service and maintain the equipment in order to prevent adverse impact upon the sewer collection system and treatment facility. The Director of Public Works or his designee is authorized and empowered to enter onto the premises of the sewer user, during normal business hours for the purpose of inspecting the cleanliness, service and maintenance of the FOG interception equipment. The failure to clean, service and maintain FOG interception equipment shall constitute a prohibited act. Once per month is minimum requirements for cleaning in ground tanks, and all under sink grease traps are to be cleaned once a month. All trap cleaning shall change under the discretion of the Director of Public Works on condition of units.

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Sand, soil and oil interceptors. All car washes, truck washes, service stations, garages and other sources of sand, soil and oil shall install effective sand, soil and oil interceptors. These interceptors shall be sized to effectively remove sand, soil and oil at the expected flow rates. The interceptors shall be serviced, cleaned and maintained so as to prevent impact upon the sewer collection and treatment system. Owners whose interceptors are deemed to be ineffective by the Director of Public Works may be required to change the service frequency or may to increase the capacity of the interceptor and may be subject to being in violation under the Fog Program. Owners or operators of washing facilities will prevent the inflow of storm/rain water into the sanitary sewer system.

FOG, sand, soil, interception equipment compliance standards. The FOG interception equipment/plumbing therein associated, must be designed and installed in accordance with the state of Kentucky Plumbing Code. Underground equipment shall be tightly sealed to prevent inflow or storm or rainwater and must be easily accessible to allow for regular inspection, and for regular/routine maintenance and cleaning. FOG interception equipment and other interceptors shall be maintained by the owner or operator of the facility so as not constitute a prohibited act under this Fog Program, and so as to prevent a stoppage of the sewer collection system, and the accumulation of FOG in the sanitary sewer lines, pump stations and treatment plant. If the City is required to clean out the public sewer lines as a result of a stoppage resulting from a prohibited act under this Fog Program, or from poorly cleaned, serviced or maintained FOG interception equipment, in addition to the penalties set forth above, and the discontinuation of water service, the property owner shall be required to refund the reasonable cost of labor, equipment and materials expended in cleaning out the sewer collection system lines. In the event that two or more sewer users are found to have contributed to a stoppage, or impediment to the flows of the sewer collection system, then the costs shall be apportioned among them pro-rata. In the event the owner or its lawful occupant fails to pay the reasonable costs of labor, equipment and materials, then those costs may be assessed against and collected as a special assessment under the Ad Valorem Property Taxes, on the property.

NEW MULTI-UNIT FACILITY, OR NEW "STRIP MALL" FACILITY

Facility owners shall contact Murray Water System 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 "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.

Grease control equipment sizing and fees. Minimum acceptable size of grease equipment for each FSE classification will be as follows:

**Class 1: Deli, ice cream shops, beverage bars, mobile food vendors—
35pgm/70 pound grease trap (NACIS 722213, 722330)**

**Class 2: Limited service restaurants/cafeterias/daycares—1,000 gallon
grease interceptor (NAICS 722211, 722310)**

**Class 3: Full service restaurants—1,000 gallon grease interceptor
(NACIS 722110)**

**Class 4: Buffet and cafeteria facilities—1,500 gallon grease interceptor
(NACIS 722122)**

**Class 5: Institutions (schools, hospitals, prisons, etc.) 2,000 gallon grease
interceptor (NACIS 722310)**

Class 1: \$50.00

Class 2: \$100.00

Class 3: \$100.00

Class 4: \$150.00

Class 5: \$200.00

52.99 ENFORCEMENT PROVISIONS

52.99 (2)(A) Any user who has violated and/or continues to violate this chapter or any permit issued hereunder, shall be liable to the city for a civil penalty of not less than \$ 500 but not more than \$ 5000 plus actual damages incurred by POTW per violation per day for as long as the violation continues. In addition the above described penalty and damages, the city may recover reasonable attorney's fees, court costs, and other expenses his enforcement activities, including special sampling Monitoring expenses.

This FOG Program may be amended by the Director of Public Works and the Pretreatment Coordinator as conditions, or needs warrant.

**INSPECTION SCHEDULE FOR COMMERCIAL
KITCHENS AND FSEs.**

- Class 1. One time per year**
- Class 2. One time per Year**
- Class 3. One time per year**
- Class 4. Two times per year**
- Class 5. Two times per year**

Inspection times may change depending on how well the grease interceptors are maintained or not maintained after the FOG Program is put in place.

**PROHIBITION OF UNAUTHORIZED DISCHARGES
BY GREASE HAULERS IN ANY INFLUENT MANHOLE**

City of Murray Sewer Use Ordinance 52.05 Use of Public Sewers (E) (11)

such concentrations exceeding limits which may be established by the Mayor as necessary, after treatment of the composite sewage, to meet the requirements of the state, federal, or other public agencies of jurisdiction for such discharge to the receiving waters.

(7) Any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by state or federal regulations.

(8) Any waters or wastes having a pH in excess of 9.0.

(9) Materials which exert or

(a) Unusual concentrations of inert suspended solids (such as, but not limited to, sodium chloride and sodium sulfate).

(b) Excessive discoloration (such as, but not limited to, dye wastes and vegetable tanning solutions).

(c) Unusual B.O.D., chemical oxygen demand, or chlorine requirements in such quantities as to constitute a significant load on the sewage treatment works.

(d) Unusual volume of flow or concentration of wastes constituting slugs.

(10) Waters or wastes containing substances which are not amenable to treatment or reduction by the sewage treatment processes employed, or are amenable to treatment only to such degree that the sewage treatment plant effluent cannot meet the requirements of other agencies having jurisdiction over discharge to the receiving waters.

(11) No person shall discharge or cause to be discharged any truck or hauled pollutants except at discharge points designated by the POTW (40 CFR 403.5(b)).

(F) (1) Industrial wastewater discharge permit. No person shall discharge or cause to be discharged any industrial wastewater directly or indirectly to sewerage facilities owned by the city without first obtaining a city permit industrial wastewater discharge.

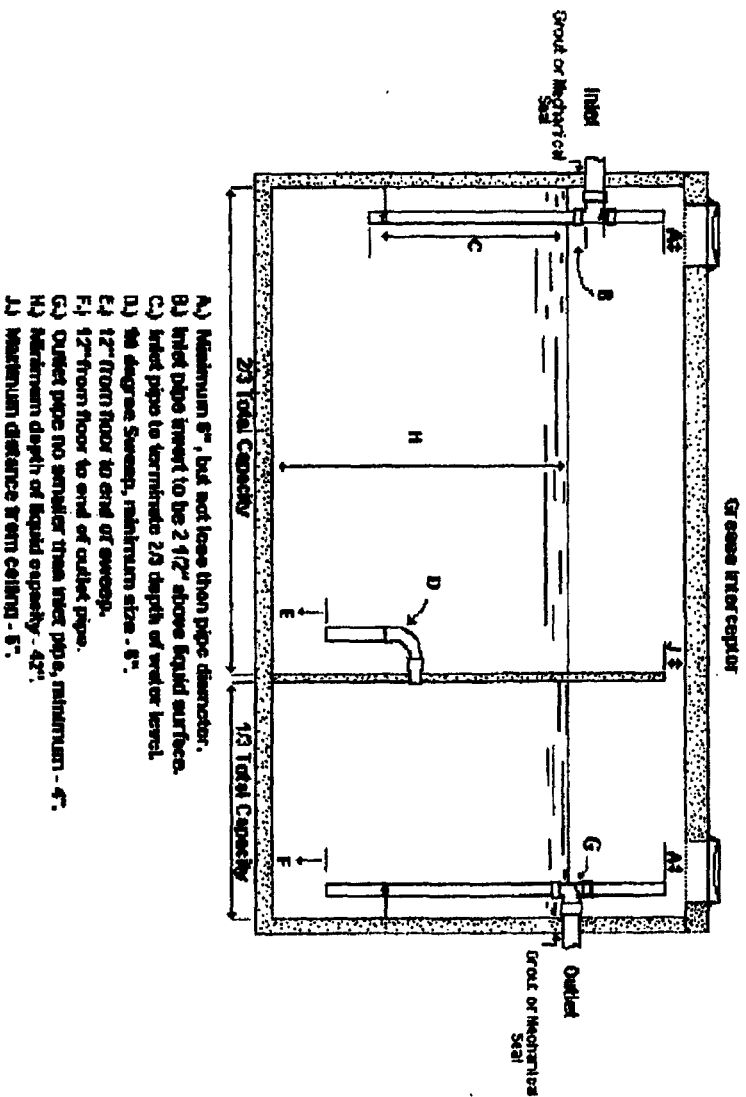
(2) The permit for industrial wastewater discharge may require pretreatment of industrial wastewaters before discharge, restriction of peak flow discharges, discharge of certain wastewaters only to specified sewers of the city.

(3) Any agency and/or industries outside of the jurisdiction of the city that wish to contribute wastewaters to the POTW must first sign (through an authorized representative) an interjurisdictional agreement whereby the agency and/or industrial user agree to be regulated by all provisions of this chapter, state and federal regulations.

(G) Significant industrial users. All significant industrial users shall comply with National Categorical Pretreatment Standards and any other applicable requirements promulgated by EPA or with any more stringent pretreatment standards necessitated by local conditions.

(H) Approval on pretreatment of waste flows.

Typical Design Standards 1,000 Gallon Grease Trap



- A) Minimum 8", but not less than pipe diameter.
- B) Inlet pipe invert to be 2 1/2" above liquid surface.
- C) Inlet pipe to terminate 2/3 depth of water level.
- D) 90 degree sweep, minimum size - 8"
- E) 12" from floor to end of sweep.
- F) 12" from floor to end of outlet pipe.
- G) Outlet pipe no smaller than inlet pipe, minimum - 4"
- H) Maximum depth of liquid capacity - 42"
- I) Maximum distance from ceiling - 5"