



Madison Utilities Fat, Oil, and Grease Program

September 2023

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I. Scope and Purpose

Madison Utilities (MU) has the responsibility of managing the discharge of Fats, Oils, and Grease (FOG) by commercial producers in our service area. When FOG is discharged into the sanitary sewer system it creates a negative impact on the system's ability to convey sanitary sewer flow to the wastewater treatment plant. In some extreme cases, FOG can cause backups, overflows, and operation issues in the MU wastewater collection system. These types of problems can result in a permit violation between MU and the Alabama Department of Environmental Management (ADEM).

In order to protect our customers from wastewater overflows and ensure full compliance with our operating permit, changes were made to MU's grease trap maintenance program in 2009. The MU Board and the City Council of Madison approved these changes with an effective date of October 1, 2009. Users of the Publicly Owned Treatment Works may be required by the Board to install, implement, and maintain grease traps, interceptors, or other approved strategies to avoid the introduction of FOG into the sanitary sewer system.

II. Definitions

- Fats, Oils, and Grease (FOG): Organic compounds produced from but not limited to meat fats, cooking oil, and other food products high in fat that is discharged into the sewer system by way of improper disposal through sink and floor drains.
- Food Service Establishment (FSE): Any establishment, business or facility that is engaged in preparing, serving, or making food available for consumption. This definition does not include single family residences, but multi-family dwellings may be considered an FSE at the discretion of MU.
- Brown Grease: Fats, oils, and grease that are discharged to grease control equipment and the sanitary sewer system.
- Yellow Grease: Fats, oils, and grease that has not been contaminated and can be removed from fryers or similar cooking equipment to be placed in specialized containers for recycling purposes.
- Grease Control Equipment (GCE): A device used for separating and retaining FOG prior to separated wastewater exiting the FSE sewer connection and entering the MU Sanitary Sewer System.
- Grease Interceptor: A tank typically 1000 to 2000 gallons in capacity designed to provide FOG control for an FSE. Grease interceptors must be constructed as detailed in the MU *Construction Specifications for Water and Sanitary Sewer, Latest Edition*, unless a variance has been approved by MU. For FSEs required to install grease interceptors, the minimum size requirement shall be 1,000 Gallons or an approved equal.

- Grease Trap: Typically, a small tank, such as an “under the sink” trap. Under the sink grease traps require a servicing frequency much greater than that of an exterior grease interceptor.
- Publicly Owned Treatment Works: A wastewater treatment facility or infrastructure that is owned by a state or municipality.

III. General Requirements

1. All existing FSEs are required to have Grease Control Equipment (GCE) installed, maintained, and in proper working order at the FSE’s expense. If the Water and Wastewater Board of MU determines an establishment is not in compliance, they will be notified in writing. The notification will detail how the establishment is out of compliance and what corrective actions must be taken to comply. The establishment will then have 90 days to correct any issues outlined by the Board. In some cases this will include locations that previously have not had grease interceptors but have recently been determined a grease interceptor must be installed.
2. All grease control equipment shall be serviced and emptied of accumulated waste content as required to maintain its minimum design capability or effective volume of the device, but not less than every 90 days. Requests for variances from the pumping frequency requirements will only be considered after one year of data has been documented for the site in question. Any variances will only be approved if MU is satisfied that a reduced pumping frequency will not compromise the operation of the sanitary sewer system. Any variances to maintenance and service schedules and procedures shall be subject to annual review by MU.
3. All FSEs are required to document and maintain records of cleaning and maintenance of their GCE. Grease Interceptor Maintenance Logs as approved by MU, must be completely filled out by an FSE supervisor, and the servicing company agent.
4. GCE maintenance records must be kept on the premises and always be available for inspection by MU personnel. The FSE shall maintain their maintenance records for a period of three (3) years from the date of servicing.
5. All FSEs are required to dispose of yellow grease in an approved container where contents will not be discharged to the sanitary sewer, or storm water sewer system. Any FOG poured or discharged into the sanitary sewer system is a violation punishable as provided in the Madison, AL code of ordinances.
6. Owners of commercial property are responsible for all wastewater discharges from the leaseholder/leaseholders on their property. It is the owner’s responsibility to ensure leaseholders maintain compliance with this program.

IV. Equipment Specifications

1. Grease interceptors shall be installed at all FSEs when required according to the Utility Code of Madison City.
2. Grease interceptors shall be designed with a minimum 10-minute detention period based on calculated peak flow through the tank.
3. Tanks shall be designed in accordance with the Rules of Alabama State Board of Health, the Standard Building Code, and Standard Drawing as shown in the latest revision of the MU *Construction Specifications for Water and Sanitary Sewer, Latest Edition*. The minimum tank size shall be 1,000 gallons, a Shier GB-250, or approved equal.
4. Variances for full size 1000 gallon concrete interceptors may be approved by MU on a case-by-case basis. Requests for variances must be made by a Registered Professional Engineer in writing to the MU Engineer.
5. For further information regarding grease interceptor design and installation, reference the section *Grease Interceptor Requirements* of the MU *Construction Specifications for Water and Sanitary Sewer*.

V. Pumping Frequencies and Maintenance Requirements

1. Grease interceptors must have the complete contents pumped or cleaned at a frequency of not less than every 90 days unless a variance has been approved in writing by MU.
2. Grease interceptors must have their complete contents pumped prior to 90 days if the total accumulation of surface FOG (to include floating solids) and settled solids reaches twenty-five percent (25%) of the grease interceptors' overall depth of liquid storage capacity. This is often referred to as "The 25 Percent Rule".
3. The 25 percent rule can be calculated as follows:

$$\frac{FOG + SOLIDS}{DEPTH OF CONTENTS} \times 100 = \% \text{ capacity}$$

4. Partial pumping or treatment and reintroduction of FOG wastes to the grease interceptor is prohibited. FOG wastes that are treated or reintroduced to the grease interceptor will resolidify in the downstream pipes causing blockages and backups.

5. Influent and effluent tees must be inspected during routine cleaning and maintenance. The condition of the tees shall be noted by the grease waste hauler or individual conducting the maintenance on the Grease Interceptor Cleaning Log. The grease waste hauler or individual conducting the maintenance shall notify the owner or manager of the FSE and inform him / her of any damage or defects that have been identified. Tees that are loose, not attached, damaged, or defective must be repaired or replaced immediately. Failure to address and correct deficiencies may result in penalties as described in Section 10 – Violations and Enforcement Actions.
6. Access manholes to grease interceptors must be accessible to MU personnel at all times. Grease interceptor manhole lids must be made of heavy materials that can hold up to the weight of traffic. Manhole lids must be inaccessible to children.
7. The use of additives for grease management and control is prohibited. Additives including solvents, emulsifiers, surfactants, acids, etc. may not be used as these could cause temporary breakdown of FOG that will be discharged to the sanitary sewer collection system and later resolidify in the downstream sewer pipes. Only mild household cleaners may be used to clean FSE drain lines in such quantities that will not cause unwanted discharge of FOG.

VI. Pumping and Disposal

1. Pumping and disposal of grease interceptor waste contents must be performed by a permitted waste hauler at the expense of the FSE.
2. Pumping of grease interceptors includes pumping the device completely dry and having all liquids, solids, and grease removed. A grease interceptor is not considered “clean” and fully serviced unless the entire contents have been pumped.
3. All collected FOG is to be transported to an authorized storage facility by the grease waste hauler where it shall be properly disposed of. The only exception is yellow grease which may be placed in containers for recycling.
4. “Decanting” or pumping FOG from a grease interceptor to a grease hauler truck, and returning FOG back into the grease interceptor after the interceptor is vacuumed is not permitted.
5. FOG Haulers must maintain disposal manifests and complete the required portions of the FSE’s Grease Maintenance Log as required by the Board.

VII. Records of Maintenance

All FSEs are required to document and maintain records of servicing and maintenance performed on their GCEs. FSEs must maintain records for a period of three (3) years after the date of servicing. Maintenance and cleaning are to be recorded on the Grease Interceptor Maintenance Log and kept on

the FSE premises. Maintenance and cleaning records should always be available for review by the Board or its representative.

Maintenance records should include, but are not limited to:

- customer name and physical location
- date and time of grease device service
- name of grease device servicing company
- name and signature of grease interceptor servicing agent who performed said service
- type of services performed
- approximated amount of grease and solids removed from device
- total volume of waste removed
- destination of waste removed
- signature and date of FSE manager confirming service completion
- and any other information as required by the Board

VIII. Best Management Practices

FSEs should provide such facilities and institute such procedures as are reasonably necessary to prevent or minimize the potential for accidental discharge of FOG into the sanitary sewer collection system. FSEs should implement Best Management Practices (BMPs) to prevent the discharge of FOG into the sanitary sewer system. Examples of BMPs include:

1. Recycle waste cooking oil. Dispose in proper grease recycle bins or closed containers. Do not pour any FOG into sinks, floor drains, or mop sinks.
2. Post “NO GREASE” signs above all kitchen sinks to remind employees.
3. “Dry Wipe” and scrape food residues from pots, pans, plates, and cooking utensils as much as possible.
4. Use strainers in sink drains and floor drains to prevent large food particles and contaminants from entering the sewer lines.
5. If an oil or grease spill occurs, clean up using “dry” oil absorbent material, or use ice to make grease solidify for easier cleaning. Scoop up and dispose of spilled grease into a trash container. Do not wash oil or grease into the drains.
6. Dispose of food items in the trash as opposed to a sink garbage disposal. Food grinder use is discouraged due to buildup of solids in the GCE which causes decreased efficiency and increases the need to pump the GCE more frequently.

7. Educate and train all employees on grease control and preventing sanitary sewer pipe clogs and sanitary sewer overflows.

IX. Right of Entry

MU or their authorized representative shall have the right to enter the FSE's premises to determine whether the FSE is following the requirements of this program and/or the Madison, AL code of ordinances. FSEs shall allow MU personnel, or their authorized representative, upon presentation of proper credentials, full access to all parts of the premises for the purpose of inspection, monitoring, and/or records examination. MU may require the FSE to notify them 24 hours prior to any pumping, cleaning, maintenance, or certification of the grease control equipment tank. MU may require the FSE to schedule pumping of their interceptor if it is determined that the interceptor is defective or there is chronic FOG obstruction in the downstream sewer. Unreasonable delays in allowing MU personnel access to the FSE premises shall be a violation of this policy and the Madison, AL code of ordinances.

X. Violations and Enforcement Actions

Noncompliance with any requirement and/or provision of the Madison, AL code of ordinances or MU FOG Program will result in enforcement actions. The FSE may be required to reimburse MU for all labor, equipment, supplies, and disposal costs incurred by MU to address the noncompliance. The charges will be added to the FSE's water/wastewater bill. Failure to reimburse MU or repeated non-compliance with this program may result in the termination of water service.

Violation penalties will be issued as follows:

- 1st offense – written warning of noncompliance with thirty (30) days allowed for the FSE to implement corrective actions.
- 2nd offense - \$100 fine. Each day a violation of this division continues shall constitute a separate offense.
- 3rd offense - \$500 fine. Each day a violation of this division continues shall constitute a separate offense.

XI. Appendix