

**City of Lake Wales, Florida**  
*Utilities Department*

# **Fats, Oils, and Grease Program Manual**

**City Utilities Department**

**City Administration  
201 W. Central Avenue  
Lake Wales, FL 33853  
Phone (863) 678-4182  
Fax (863) 678-4074**

## 1. Purpose and Objectives.

1.1. The purpose of this manual is to establish the City of Lake Wales Fats, Oils & Grease (“FOG”) Program, which provides specific standards for the design, capacity, installation, maintenance, and administrative procedures required for grease interceptors and oil/water separators. This manual also establishes inspections, enforcement procedures and fees associated with the FOG Program.

### 1.2. The Purpose and Intent of the FOG Program:

1.2.1. Fats, oils, and grease (“FOG”) will cause blockages in pipes which can result in backups and sanitary sewer overflows which damage the environment and increase maintenance of wastewater transmission pipes and structures as well as creating wastewater treatment compliance problems at the City of Lake Wales's Publicly Owned Treatment Works (“POTW”).

1.2.2. The purpose of this Manual is to provide for the implementation of the City of Lake Wales’s FOG Program with the objective to minimize the introduction of fat-soluble wastes to the collection system and the POTW.

1.2.3. The program provides specific standards for design, capacity, installation, maintenance, and administrative procedures required for devices, but is not intended to supplant the City Code FOG provisions, but to supplement and provide more detail than those code provisions, with the City Code having primacy over the provisions in this Manual.

1.2.4. This manual also establishes inspection and enforcement procedures within the FOG Program.

1.2.5. The program will assist the City to comply with its Florida Department of Environmental Protection permit conditions and any other Federal and State laws to which the POTW is subject.

## 2. Definitions. The following words and phrases, when used in this article, shall have the meanings indicated below, except when the context clearly indicates a different meaning.

2.1. **Act or the Act** - The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 USC §1251 et seq.

2.2. **Approved** - Describing a method or design acceptable to the City of Lake Wales. All approvals must be in writing by the Utilities Director or other designee authorized to give such approval.

2.3. **City** - The City of Lake Wales as established by the Charter and laws of the City of Lake Wales.

2.4. **Collection system** – Means the pipes, pumps, and other equipment owned by the City that transmit wastewater to the POTW.

2.5. **Florida Plumbing Code** - The Plumbing section of the most current adopted edition of the Florida Building Code.

- 2.6. **Food Service Establishment** - Any non-residential establishment or residential home-based food businesses which prepare, cook, process, serve and/or package food or food products. Food service establishments include, but are not limited to, restaurants, food courts, food manufacturers, food packagers, supermarkets, bakeries, bars, fish markets, butcher shops, hospitals, hotels, nursing homes, cafeterias, churches, caterers, ice cream shops, commissaries, and schools.
  - 2.7. **Grease** - means liquid or solid material composed primarily of fatty substances, oils, and grease from animal or vegetable sources which is retained in a grease interceptor.
  - 2.8. **Grease Interceptor** (or “Interceptor”) – A receptacle through which wastewater containing fats, oils, grease flows and food wastes before entering a collection system and which is designed to trap or intercept the fats, oils, or grease.
  - 2.9. **May** - A permissive or discretionary directive.
  - 2.10. **Non-Residential Customers** - All customers other than those living in single family dwelling units, including but not limited to commercial, industrial, government, institutional, campgrounds, car washes and automotive-related facilities, nursing homes, motels, hospitals, multi-family dwellings, and similar users.
  - 2.11. **Oil/water Separator (or Separator)** - A interceptor device designed to separate and retain petroleum-based oil from the wastestream, while allowing the remaining wastewater or allowed liquid to discharge to the POTW.
  - 2.12. **POTW (Publicly Owned Treatment Works)** - A wastewater treatment facility as defined by the Act and owned by the City. This definition includes any devices or systems used in the collection, storage, treatment, recycling and reclamation of sewage or industrial wastes of a liquid nature and any conveyances which convey wastewater to a treatment plant. This definition includes public sewers, gravity sewers, manholes, pump stations, force mains, laterals and all other related appurtenances, collectively known as the “**collection system**”.
  - 2.13. **Shall, must** - Mandatory directives.
  - 2.14. **Transporter** - a person who collects the contents of a grease interceptor and properly transports it to an approved recycling disposal facility. The City reserves the right to reject a transporter that fails to comply with the law, or otherwise creates a nuisance on City streets.
  - 2.15. **User** - Any person, as defined herein, discharging wastewater to the POTW.
  - 2.16. **Utilities Director** - The Utilities Director for the City of Lake Wales, Florida, acting directly or through an authorized designee.
  - 2.17. **Wastewater** - Liquid and water-carried industrial wastes, and sewage from residential dwellings, commercial buildings, industrial and manufacturing facilities, and institutions, whether treated or untreated, which are contributed to the POTW.
3. **General Requirements.**

- 3.1. The discharge by a user to the POTW of certain liquids or wastes may be prohibited or limited as provided in the provisions in this manual.
- 3.2. Wastes, which contain fats, oil, and grease, may be discharged to the City collection system in accordance with the conditions set forth in this manual.
- 3.3. Wastes containing fats, oil, and grease, including materials processed through garbage grinders, shall be directed to the interceptor or separator.
- 3.4. Wastes containing trace amounts of petroleum-based oil and grease shall be directed to the oil/water separator.
- 3.5. Sanitary facilities and other similar fixtures shall not be connected or discharged to the interceptor or the separator.
- 3.6. Liquid wastes shall be discharged to the interceptor or separator through the inlet pipe only and in accordance with the design/operating specifications of the device.
- 3.7. Oil and grease interceptors and oil/water separators shall be installed in a location that provides easy access at all times for inspection, cleaning and proper maintenance, including pumping. Interceptors or separators shall not be located in or near any part of a structure where food handling is done. The City shall approve the location of the interceptor or separator prior to installation.
- 3.8. Nonresidential establishments or residential home-based food businesses (users) that prepare, process or serve food or food products shall have an approved interceptor. Nonresidential establishments or residential home food businesses that have the potential to discharge wastes containing residual petroleum-based oil and grease, such as commercial laundries, car washes, and automotive related facilities, shall have an approved oil/water separator. Other users may be required by the Utilities Director or designee to install an approved oil and grease interceptor or an oil/water separator, as appropriate, for the proper handling of wastes containing fats, oil or grease exceeding one hundred (100) mg/L by weight.
- 3.9. Other types of food manufacturing or food preparation enterprises, such as, but not limited to, commissaries, commercial kitchens, and caterers shall install an oil and grease interceptor. Oil and grease interceptors shall be sized on an individual case by case basis. A control manhole or inspection box for monitoring purposes shall be required and installed at the owner/operator's sole expense, as approved by the Utilities Director or designee.
- 3.10. Multifamily dwellings, such as triplexes, quadraplexes, townhouses, condominiums, apartment buildings, apartment complexes, or areas of intensified dwelling which are found by the Utilities Director or designee to be contributing oil and grease in quantities sufficient to cause main line stoppages, lift station malfunctions, or necessitate increased maintenance on the collection system, said user(s) shall be directed to cease discharging oil and grease to the POTW and/or shall be required to install a grease and oil interceptor. The capacity of the oil and grease interceptor shall be evaluated on a case-by-case basis. A control manhole or inspection box for monitoring purposes shall be required and installed at the owner/operator's sole expense, as approved by the Utilities Director or designee.

- 3.11. Automotive related enterprises, commercial laundries and laundromats, and other users which contribute wastes containing petroleum (hydrocarbon) based oils and greases shall install an oil/water separator. Oil/water separators shall be sized on an individual case-by-case basis using established design guidelines for the proposed facility. A control manhole or inspection box shall be installed downstream.
- 3.12. Oil and grease interceptors and oil/water separators shall be installed solely at the user's expense. Proper operation, maintenance and repair shall be done solely at the user's expense.
- 3.13. Minimum removal efficiency for oil and grease interceptors for animal fats and vegetable oils shall be eighty (80%) percent. Minimum removal efficiency for oil/water separators for trace petroleum-based wastes shall be ninety (90%) percent.
- 3.14. The Public Works Director or designee may request that the non-residential residential or home-based food businesses user provide documentation on the design and performance of the interceptor or separator. Information to be submitted includes, but may not be limited to, catalog cuts, performance data, materials of construction, installation instructions, and operation and maintenance manual.

#### 4. **Design.**

- 4.1. Grease interceptors and oil/water separators shall be designed and constructed in accordance with the provisions of this manual, the City of Lake Wales Code of Ordinances, the Florida Plumbing Code, the Florida Administrative Code and other applicable Federal, State and local laws, rules and regulations.
- 4.2. Grease interceptors and oil/water separators shall have been tested and listed as satisfactory for the intended use of the interceptors by a nationally or internationally recognized testing agency, such as the International Association of Plumbing and Mechanical Officials, Plumbing & Drainage Institute, or the American Society of Mechanical Engineers.
- 4.3. The user shall submit to the City the Florida Product Approval report and identification number, along with documentation on the design and expected performance of the grease interceptor or oil/water separator. Information shall include, but shall not be limited to, approval agencies, size, capacity, schematics, plan details, performance data, construction materials, installation instructions and operation/maintenance manual. The User must have obtained written City approval of the device prior to installation.
- 4.4. Alternative fats, oils and grease removal devices or technologies, such as automatic grease removal devices, shall be subject to City review and written approval. Approval shall be based on proven removal efficiencies with the burden of documenting the efficiency resting with the user.
- 4.5. In-ground interceptors shall be equipped with a minimum of two manholes, each no larger than 24 inches in diameter, located to allow access to the inlet and outlet piping.
- 4.6. The covers shall be water and gas tight and shall be labeled as "grease." Traffic installations shall have traffic-bearing manhole covers. Concrete lids, shipping lids or lids which create a hazard shall be prohibited on grease interceptors or oil/water separators and shall be replaced

at the next scheduled pump out. Interceptor lids shall remain easily accessible and shall not be covered with bricks, pavers or steppingstones.

5. **Capacity.**

5.1. The capacity of a grease interceptor shall be determined using the following formula:

$$\text{Capacity in gallons} = (S) \times (GS) \times (HR/12) \times (LF)$$

Where:

S = Number of seats

GS = Gallons of wastewater per seat (use 25 for dishes, use 10 for paper or baskets)

HR= Number of hours restaurant is open

LF = Loading factor (use 1.25 recreational area; 1.00 main highway; 0.75 other highway)

The minimum capacity of a grease interceptor shall be 750 gallons. If more than 1250-gallon capacity is required, the device may be chambered in isolated 1250 gallon sections or two (2) or more devices may be installed in series.

***Under the sink or indoor grease traps are prohibited for new facilities***, or facilities that are renovated, expanded, sold, or undergo change of ownership, unless granted a written exemption by the City.

5.2. The capacity of an oil/water separator shall be determined using the following formula:

$$\text{Capacity in gallons} = 45 \text{ gallons for the first 100 square feet of area to be drained} + 7.5 \text{ gallons for each additional 100 square feet of area to be drained into separator.}$$

The minimum capacity of an oil/water separator shall be 750 gallons. If more than 1250 gallon capacity is required, two or more devices may be installed in series.

6. **Installation.**

6.1. Grease interceptors and oil/water separators shall be installed in accordance with the manufacturer's instructions, the provisions herein, the City of Lake Wales Code of Ordinances, the Florida Plumbing Code, the Florida Administrative Code and other applicable Federal, State and local laws, rules and regulations.

6.2. Grease interceptors and oil/water separators shall be installed by a properly licensed plumbing contractor at the sole cost of the user. All units shall be inspected by the City during the installation process.

6.3. Grease interceptors and oil/water separators shall be installed in a location as close as possible to the source of grease and which provides immediate access at all times for cleaning, maintenance and inspections. The City shall approve the location prior to installation.

6.4. Grease interceptors and oil/water separators shall be installed in the facility's lateral sewer line between all fixtures which may introduce grease into the sewer system and the connection to the City's collection system (sinks, dishwashers, etc.). Garbage disposal or food grinder waste must be routed into an approved solids interceptor prior to discharging into the grease interceptor.

6.5. *Wastewater from sanitary facilities shall not be connected or discharged to the grease interceptor or oil/water separator under any circumstances.*

6.6. Grease interceptors and non-mechanical oil/water separators shall be equipped with inlet and outlet piping that have a two-way cleanout tee installed. Inlet piping shall enter at 2.5 inches above the liquid level and connect to a tee extending to 24 inches below the water level. Outlet piping shall start at 8 inches above the bottom of the interceptor and extend vertically to a tee. Tees and pipe shall be no less than 4 inches in diameter and shall be installed with the run in the vertical direction.

## 7. Existing Devices.

7.1. On or after the effective date of the Manual, existing Users identified in the General requirements section above shall be required to install an approved, properly operated and maintained oil and grease interceptor or oil/water separator by a compliance date determined by the Utilities Director or designee when any of the following conditions exist:

7.1.1. The facilities are found by the Utilities Director or designee to be contributing oils and grease in quantities sufficient to cause line stoppages or necessitate increased maintenance on the collection system.

7.1.2. Remodeling of the food preparation or kitchen waste plumbing facilities that are subject to a permit that is issued by the City Permitting Office.

7.1.3. Remodeling of an automotive related enterprise, commercial laundry or other users that potentially may contribute wastes with petroleum-based oils and greases.

7.2. **Extensions.** Any requests for extensions to the required installation dates must be made in writing to the City of Lake Wales Utilities at least fifteen (15) days in advance of the compliance date. The written request shall include the reasons for the user's failure or inability to comply with the compliance date set forth, the additional time needed to complete the remaining work, and the steps to be taken to avoid future delays.

## 8. Cleaning and Maintenance.

8.1. Cleaning and maintenance shall be performed by the user. Cleaning shall include the complete removal of all liquid, semi-liquid, and solid contents, including floating materials, wastewater, bottom sludge and detritus, and solids.

8.2. Maintenance shall include all activities, including repairs, required to ensure the grease interceptor or oil/water separator is in proper working condition and functioning as intended by the device manufacturer. Maintenance also includes ensuring inlet and outlet tees are in place and unobstructed, vents are unobstructed, baffles are in place and lid seals are tight.

- 8.3. Decanting, back-flushing, or discharging of removed wastes back into the oil and grease interceptor or oil/water separator from which the waste was removed or any other oil and grease interceptor or oil/water separator, for the purpose of reducing the volume to be hauled and disposed of, is prohibited.
- 8.4. All Devices shall be pumped out completely at a minimum frequency of once every ninety (90) days, or more frequently as needed to prevent carryover of oil and grease into the collection system. Any pumping frequency will be adjusted in writing should it be determined by the Utilities Director or designee that based on flows, quantity of oil and grease in the discharge, volume of business, hours of operations and seasonal variations, a more frequent pumping schedule is required in order to maintain compliance with other sections of this manual. All Devices shall be deep cleaned annually to include pressure cleaning or scraping of the walls, baffles, cross pipes, inlet and outlet tees and inspected by the user.
- 8.5. The user shall be responsible for maintaining the oil and grease interceptor or oil/water separator in such a condition for efficient operation. An interceptor shall be considered to be out of compliance if the grease layer on top exceeds six (6) inches and the solids layer on the bottom exceeds eight (8) inches or if removal efficiencies as determined through sampling and analysis indicate less than eighty (80%) percent.
- 8.6. Wastes removed from each oil and grease interceptor shall be disposed at a permitted facility to receive such wastes or an approved location designated by the City of Lake Wales for such purposes. Waste returned to any private or public portion of the collection system or the treatment plants is strictly prohibited without the express written approval of the Utilities Director or designee.
- 8.7. Additives placed into the oil and grease interceptor, oil/water separator or building discharge line system on a constant, regular, or scheduled basis must be reported to the Utilities Director in writing at least five (5) days prior to use. Such additives shall include, but not be limited to, emulsifiers, enzymes, commercially available bacteria, or other additives designed to absorb, purge, consume, treat, or otherwise eliminate grease and oils. Any use of additives must be approved in writing by the Utilities Director or designee prior to introduction into the waste stream, interceptor, or separator. The use of additives in no way shall be considered as a substitute for the maintenance procedures required herein.
- 8.8. Flushing the oil and grease interceptor or oil/water separator with water having a temperature more than 140°F shall be strictly prohibited.
- 8.9. All maintenance of oil and grease management devices, including proper disposal, shall be performed by the user at the user's sole expense.
- 8.10. The user shall be responsible for maintaining grease interceptors or oil/water separators in a working condition as required for efficient operation or be subject to disconnection of utility services.
- 8.11. An interceptor shall be considered out of compliance if any of the following conditions exist:
  - 8.11.1. The floatable grease layer exceeds six (6) inches in depth;

- 8.11.2. The solids layer on the bottom exceeds eight (8) inches in depth;
- 8.11.3. The total volume of captured grease and solid material displaces more than 20 percent of the device capacity; or,
- 8.11.4. The removal efficiency of the device, as determined through sampling and analysis, is less than 80 percent.

9. **Permitting.**

- 9.1. It is unlawful for any facility producing fats, oil, or grease waste to discharge into the City's collection system without authorization from the Utilities Director or designee. Authorization shall be given in the form of a FOG Discharge Permit. Application for a permit shall be made to the Utilities Director or designee. If, after examining the information contained in the "Fats, Oil and Grease Discharge Permit Application", it is determined by the Utilities Director or designee that the proposed facility does not conflict with the provisions of the program, a permit shall be issued allowing the discharge of such wastes into the collection system. Each Fats, Oil and Grease (FOG) permit shall be issued for a time no longer than five (5) years from the date of permit, subject to compliance with the permit. In order to renew permit the facility shall have a thorough inspection done by a licensed contractor. Submittals from the contractor will include a CONFINED ENTRY PERMIT and before and after pictures and videos of work performed on the device.
- 9.2. As a condition precedent to the granting of a Fats, Oil and Grease Discharge Permit, the recipient under this section shall agree to hold harmless the City of Lake Wales and its employees from any liabilities arising from the user's operations under this certificate.

10. **Cleaning and Maintenance Documentation Requirements.**

- 10.1. Users shall maintain a manifest that confirms pumping, hauling, and disposal of waste from an interceptor. This manifest shall contain the following information:
  - 10.1.1. User information: facility name, contact person, address and phone number.
  - 10.1.2. Transporter information: company name, contact person, address and phone number.
  - 10.1.3. Destination information: company name, permit number, contact person, address and phone number.
  - 10.1.4. Pumping information: date, time, volume pumped, transporter name, transporter signature, witness name and witness signature.
  - 10.1.5. Maintenance information: date, description of maintenance, name and signature.
- 10.2. A log of pumping activities shall be maintained on site by the user for the previous twelve (12) months and made available for inspection and review by the City. The log shall include the date, time, volume pumped, hauler's name and license number and hauler's signature. The user shall report pumping activities within seven (7) days to the City on the form so designated by the City for such purposes.

- 10.3. Current cleaning and maintenance logs, including all activities for the previous 12 months, shall be posted in a conspicuous location, easily visible and accessible to City personnel.
- 10.4. The user shall maintain a file of the records and other documents pertaining to the facility's oil and grease interceptor or oil/water separator for a minimum of five (5) years. The file contents shall include, but is not limited to, the record (as-built) drawings, record of inspections, log of pumping activities and receipts, log of maintenance activities, hauler information, disposal information, and monitoring data. The file shall be available at all times for inspection and review by the Utilities Director, or designee.
- 10.5. The Utilities Director or designee may require the user to provide, operate, and maintain, at the user's sole expense, appropriate monitoring facilities, such as a control manhole, that are safe and accessible at all times, for observation, inspection, sample collection, and flow measurement of the user's discharge to the collection system and POTW. The Utilities Director, or designee may impose additional limitations and monitoring requirements for the discharge to the POTW in accordance with the provisions set forth in this manual.

## 11. **Inspection.**

- 11.1. The user shall permit the City to enter and conduct facility inspections at any time without notice as a condition of being served by City water and sewer. Refusal to allow entry will not result in an unauthorized entry, but will subject the user to an immediate citation and fine, and disconnection of service after notice.
- 11.2. Inspections shall be conducted by the City on all facilities containing interceptors with a frequency based on the size of the device and previous compliance. Inspections are conducted to ensure compliance with the requirements of this manual and to ensure adherence to proper cleaning and maintenance schedules. If a problem arises, such as line stoppages or increased maintenance of the collection system or POTW, or if a violation is noted during the routine inspection, inspections may be conducted more frequently as determined by the City.

## 12. **Enforcement.**

- 12.1. A Notice of Violation shall be issued to a user for any violation of the provisions of Chapter 21 of the City Code, or of this manual, which violations shall include, but shall not be limited to, the following:
  - 12.1.1. Failure to report pumping activities;
  - 12.1.2. Failure to properly maintain (clean out or pump) the interceptor or separator in accordance with the provisions of the FOG Discharge Permit;
  - 12.1.3. Failure to maintain and post the log of pumping activities;
  - 12.1.4. Failure to maintain a file of records on-site at all times;
  - 12.1.5. Failure to provide logs, files, records, or access for inspection or monitoring activities;
  - 12.1.6. Failure to obtain or renew the FOG Discharge Permit.
  - 12.1.7. Failure to correct a previous violation by the established deadline; or,
  - 12.1.8. Failure to timely pay FOG Program fee; or,

- 12.2. The Public Works Director or designee may serve any user a written notice stating the nature of violation. The user shall have seventy-two (72) hours to complete corrective action and submit evidence of compliance to the Public Works Director or designee.
- 12.3. If a user violates or continues to violate the provisions set forth in this manual or fails to initiate/complete corrective action within the specified time period in response to a Notice of Violation (NOV), then the Utilities Director or designee may pursue one or more of the following options:
  - 12.3.1. Pump the oil and grease interceptor or oil/water separator and place the appropriate charge on the user's monthly sewer or water bill;
  - 12.3.2. Assess a reasonable fee for additional inspection, sample collection, and laboratory analyses;
  - 12.3.3. Refer case to Code Enforcement;
  - 12.3.4. Terminate water and sewer service;
  - 12.3.5. Refer to City Attorney for legal action in court, with City Commission approval;
  - 12.3.6. Any combination of the above enforcement actions.
- 12.4. Progressively strict enforcement action shall be pursued against users giving obstreperous refusals to comply or with multiple violations of the provisions of this section including, but not limited to, termination of water service.
- 12.5. The user shall pay all outstanding fees, penalties, staff time (including overhead), and other utility charges prior to reinstatement of water and sewer service.
- 12.6. Any user in the FOG Program found in violation of the provisions in this manual, and any orders, rules, regulations, and permits that are issued pursuant to the manual, shall be served by the City with written notice according to Chapter 162, Florida Statutes, that states the nature of the violation and providing a reasonable time limit for satisfactory correction of the violation. The affected user shall permanently cease all violations within the time period specified in the notice.
- 12.7. The initial fees for the FOG Program will be adopted by the City Commission by resolution and may adopt other reasonable fees from time-to-time as deemed necessary to carry out the requirements set forth in this manual. These fees relate solely to the matters covered by the manual and are separate from all other fees, fines, and penalties assessed by the City. These fees are charged to recover the direct costs incurred by the City to implement and enforce the FOG Program.

=====END=====