



# **OIL AND GREASE MANAGEMENT PROGRAM**

**PREPARED BY:**

**GAINESVILLE REGIONAL UTILITIES**

**Supplement to Ordinance No. 0-03-78**



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## 1.0 INTRODUCTION

Wastewater discharges containing high concentrations of oil and grease from food service facilities are the main cause of blockages and overflows in the City's wastewater collection system. Overflows of wastewater into the stormwater collection system and natural bodies of water could be greatly reduced by controlling the discharge of oil and grease into the wastewater collection system. This source of pollution is also readily preventable by good management practices and proper maintenance at food service facilities. To address this issue, the City has developed an oil and grease management program.

The objectives of the oil and grease management program are to:

- Eliminate sewer system overflows.
- Reduce the amount of oil and grease discharged to the wastewater collection system.
- Reduce maintenance costs for the wastewater collection system.
- Improve operation of the wastewater collection system.
- Recover equitable costs for excessive loading of high strength wastewater (e.g. wastewater high in COD)

## 2.0 DEFINITIONS

**Approved** - Describing a method or design acceptable to GRU.

**City** - The City of Gainesville, doing business as Gainesville Regional Utilities (GRU).

**Customer** - The person responsible for payment of water service used at a specific location, and further defined as that person who signed the application requesting that services be made available at the specific location and thereby agreeing to pay for all usage of such service occurring at the location.

**Food Service Facility** - Any facility which prepares and/or packages food or beverages for sale or consumption, on or off-site, with the exception of private residences, including but not limited to food courts, food manufacturers, food packagers, restaurants, grocery stores, bakeries, lounges, hospitals, hotels, nursing homes, churches, schools.

**Grease** - A liquid or solid material, composed primarily of fats and oils from animal or vegetable sources.

**Grease Hauler** - A person who collects the contents of a grease interceptor or trap and transports it to an approved recycling or disposal facility.

**Grease Interceptor** - A device, usually located underground and outside of a food service facility, designed to collect, contain, and remove food wastes and grease from the wastestream while

allowing the remaining wastewater to be discharged to the wastewater collection system by gravity.

**Grease Trap** - A device, usually located inside the building and under a sink of a food service facility designed to collect, contain, and remove food wastes and grease from the wastestream while allowing the remaining wastewater to be discharged to the wastewater collection system by gravity.

**Normal Strength Wastewater** - Wastewater with constituents which do not exceed the following limits:

<u>Constituent</u>	<u>Maximum Concentration (mg/L)</u>
Total Solids	700
Total Volatile Solids	490
Fixed Volatile Solids	210
Total Suspended Solids	250
Volatile Suspended Solids	175
Fixed Suspended Solids	75
Total Dissolved Solids	450
Volatile Dissolved Solids	315
Fixed Dissolved Solids	135
BOD (5-day)	250
COD	375
Total Kjeldahl Nitrogen	65
Organic Nitrogen	25
Ammonia Nitrogen	40
Nitrate/Nitrite Nitrogen	40
Chlorides	75
Alkalinity	150
Fats	30
Total Phosphorus	15

**Oil/Water Separator** - A device designed to remove oil (e.g. petroleum-based) from the wastestream while allowing the remaining wastewater to be discharged to the wastewater collection system by gravity.

### **3.0 GENERAL REQUIREMENTS**

All nonresidential facilities that prepare, process or serve food as determined by the Assistant General Manager for Water/Wastewater Utilities or his/her designee are required to have a grease interceptor discharge permit issued by GRU and an approved grease interceptor or approved grease trap.

The grease trap/interceptor discharge permit for any facility shall be renewed whenever there is a significant change in operation including facility expansion, remodeling that requires a plumbing permit, or change in ownership.

Multifamily dwellings which are found by GRU to be contributing grease in sufficient quantities to cause main line stoppages, maintenance problems at lift stations, or increased maintenance in the collection system shall be required by the Assistant General Manager for Water/Wastewater Utilities or his/her designee to install an approved grease interceptor.

Automotive-related facilities including but not limited to car-washes and automobile repair shops, which may contribute petroleum-based oil to the collection system, shall be required by the Assistant General Manager for Water/Wastewater Utilities or his/her designee to install an approved oil/water separator.

Grease interceptors, grease traps, and oil/water separators shall be installed solely at the customer's expense. Proper operation, maintenance, and repair of grease interceptors, grease traps, and oil/water separators shall be done solely at the customer's expense.

### **4.0 DESIGN**

Grease interceptors, grease traps and oil/water separators shall be designed and constructed in accordance with the provisions herein, the City Engineering Standards Manual, most current edition, and other applicable State and local regulations. Design and construction shall be approved by the Assistant General Manager for Water/Wastewater Utilities or his/her designee. Appendix C contains approved construction standards for grease interceptors.

Alternative oil and grease removal technologies shall be subject to written approval by the Assistant General Manager for Water/Wastewater Utilities or his/her designee.

Grease interceptors shall be equipped with two 24-inch diameter traffic-bearing covers to allow for proper maintenance and inspection (see Appendix C).

Grease interceptors shall be equipped with a sampling port at the outlet of the interceptor.

### **5.0 CAPACITY**

The capacity of the approved grease interceptor, grease trap or oil/water separator shall be determined by the Assistant General Manager for Water/Wastewater Utilities or his/her designee. Capacity shall be determined in accordance with criteria shown in Appendix B. The Assistant General Manager for Water/Wastewater Utilities or his/her designee may use other criteria determined on a case-by-case basis.

The minimum capacity of any grease interceptor shall be 750 gallons. The maximum capacity of any grease interceptor shall be 1500 gallons. Where sufficient capacity cannot be achieved with a single interceptor, installation of grease interceptors in series shall be required.

## **6.0 INSTALLATION**

Grease interceptors shall be installed in a location outside of the customer's facility, which provides easy access at all times for inspection, cleaning, and maintenance, including pumping.

Grease interceptors shall be located in the food service facility lateral sewer line between all fixtures which may introduce grease into the sewer system and the connection to the wastewater collection system. Such fixtures shall include but not be limited to sinks, dishwashers, garbage disposals, floor drains in food preparation and storage areas, and any other fixture which is determined to be a potential source of grease.

Wastewater from sanitary facilities shall not be introduced into the grease interceptor, grease trap, or oil/water separator under any circumstances.

Grease traps shall be equipped with a device to control the rate of flow through the unit. The rate of flow shall not exceed the manufacturers rated capacity recommended in gallons per minute for the unit.

The flow control device and the grease trap shall be vented in accordance with the Florida Plumbing Code current edition. The vent shall terminate not less than six (6) inches above the flood-rim level or in accordance with the manufacturer's instructions.

## **7.0 MAINTENANCE**

Cleaning and maintenance of the grease interceptor, grease trap or oil/water separator shall be the responsibility of the customer.

It shall be the responsibility of the customer to inspect the grease interceptor, grease trap or oil/water separator during the pumping or maintenance procedure to ensure that the cleaning is done properly and that all fittings and fixtures inside the interceptor, trap, or separator are in working condition and functioning properly.

The customer shall be responsible for the cost and scheduling of all repairs to its grease interceptor, grease trap, or oil/water separator. Repairs required by the Assistant General Manager for Water/Wastewater Utilities or his/her designee shall be completed within 14 days after the date that the written notice is received by the customer, unless GRU approves a different completion date in writing.

Cleaning shall include the complete removal of all contents, including floating materials, wastewater, and bottom sludge and solids.

Grease interceptors shall be pumped out completely in accordance with the minimum frequencies outlined in Table 1, or more frequently as needed to prevent carry over of grease into the collection system. If the pump-out frequency is monthly there shall be a minimum period of three weeks between each required pumping.

Grease traps shall be cleaned a minimum frequency of once per week, or more often as necessary to prevent pass-through of grease into the collection system.

Oil/water separators shall be cleaned out completely a minimum frequency of once every 6 months or more frequently as needed to prevent carry over of petroleum based products into the collection system.

Wastes removed from each grease interceptor, grease trap or oil/water separator shall be disposed at a facility permitted to receive such wastes. In no way shall the wastes be returned to any private or public portion of the collection system or the wastewater treatment plant without prior written approval from the Assistant General Manager for Water/Wastewater or his/her designee.

No additives may be used in a grease interceptor, grease trap or oil/water separator unless approved in writing by the Assistant General Manager for Water/Wastewater or his/her designee prior to introduction into the wastestream, interceptor, or separator. The use of additives shall not be considered as a substitute for the maintenance requirements set herein.

Flushing the grease interceptor or grease trap with water having a temperature in excess of 140°F is prohibited.

All costs associated with proper maintenance of the grease interceptor, grease trap, or oil/water separator shall be borne by the customer.

The return of gray water back into the grease interceptor from which the wastes were removed is prohibited unless approved in writing by the Assistant General Manager for Utilities or his/her designee.

## **8.0 Grease Cleaning Performance Requirements**

GRU requires complete removal of solids and liquids from the grease interceptor without returning any liquid to the grease interceptor during routine cleanings. Grease haulers and disposal companies that meet this requirement will be listed in GRU's grease control brochure being distributed to new and existing customers.

GRU reserves the right to allow alternative grease interceptor cleaning methods if the following conditions are met:

- The entire contents of the grease interceptor must be removed prior to returning any liquid back to the grease interceptor. Decanting the top grease layer without removing the bottom solids is strictly prohibited.



- The alternative cleaning method must achieve 80% or greater removal efficiency for solids and grease. Proof of removal efficiency shall be as required by GRU and shall be conducted in the presence of GRU personnel.
- The determination of removal efficiency shall be as follows:

Composite Chemical Oxygen Demand of Liquid Pumped from Grease Interceptor = COD<sub>out</sub>  
 Composite Chemical Oxygen Demand of Liquid Returned to Grease Interceptor = COD<sub>back</sub>

The alternative cleaning method is acceptable if, and only if:

$$\text{COD}_{\text{out}} \times 0.2 > \text{COD}_{\text{back}}$$

The alternative cleaning method must be approved in writing by the Assistant General Manager for Water/Wastewater or his/her designee. GRU reserves the right to increase the minimum pumping frequencies listed in Table 1 or assess excess strength charges according to City of Gainesville Code of Ordinances, Appendix A, Schedule of Fees, Rates, and Charges, for any customer using an alternative grease interceptor cleaning method.

## **9.0 DETERMINATION OF COMPLIANCE WITH MAINTENANCE REQUIREMENTS**

A grease interceptor shall be considered out of compliance if any of the following conditions exist:

- The grease layer on top exceeds 6 inches in depth as measured by an approved dipping method or
- The solids layer on the bottom exceeds 8 inches in depth as measured by an approved dipping method or
- The total volume of captured grease and solid material displaces more than 20% of the capacity of the interceptor as calculated using an approved dipping method or
- The removal efficiency, as determined by sampling and analysis of COD or TSS, is less than eighty percent (80%).

The customer shall be responsible for cleaning a grease interceptor that is out of compliance within 14 days after the date the customer receives written notice, unless GRU approves a different completion date in writing.

GRU reserves the right to assess excess strength charges according to City of Gainesville Code of Ordinances, Appendix A, Schedule of Fees, Rates, and Charges to any customer whose wastewater exceeds any of the discharge limits for normal strength wastewater.

## **10.0 VARIANCE PROCEDURE FOR GREASE INTERCEPTOR MAINTENANCE FREQUENCY**

If a food service facility determines that the pumping frequency, as determined from Table 1, of their grease interceptor is unnecessary in order to remain in compliance with the criteria of section 9.0, the facility may make written application to GRU for a variance of the monthly pumping requirements by submitting the Variance Application form (see Appendix F) along with the variance application fee of \$300. GRU shall determine the variance based on inspection of the grease trap/interceptor and the nature of operations of the food service facility.

GRU may determine the maintenance frequency using the following procedure:

- A GRU representative shall observe the pump-out procedure and inspect the interceptor on a specified date and time.
- After the pump-out and initial inspection when either the level of grease reaches 6 inches or the level of solids reaches 8 inches or the interceptor reaches any point of non-compliance with the criteria in section 8, the GRU representative shall use the number of days from the initial pumping date to the final re-inspection date to establish the pumping frequency requirement to be included in the variance granted.

## **11.0 ADMINISTRATIVE PROCEDURES**

A maintenance log for grease interceptors, grease traps and oil/water separators shall be maintained on-site by the customer including data for at least the previous 12 months. The log shall include the date, time, maintenance performed, the volume removed each pump-out, and the name, signature, and contact information of the person who performed the maintenance. The customer shall provide the reports upon request during routine inspections by the Assistant General Manager for Water/Wastewater or his/her designee.

## **12.0 ENFORCEMENT**

Grease interceptors, grease traps, and oil/water separators shall be inspected by GRU as necessary to assure compliance with the requirements herein. The Assistant General Manager for Water/Wastewater Utilities or his/her designee shall have the right to enter the premises of any non-residential facility at all reasonable times for the purpose of inspection, observation, records examination, measurement, sampling, and testing in accordance with the provisions included herein.

A notice of violation shall be issued to a customer for failure to:

- Obtain a grease trap/interceptor discharge permit
- Properly maintain the grease interceptor, grease trap or oil/water separator including failure to make necessary repairs
- Maintain records on-site of pump-outs for grease interceptors

Upon receiving a notice of violation, the customer shall have 10 days to complete corrective action and submit evidence of compliance to the Assistant General Manager for Water/Wastewater Utilities or his/her designee.

Should a customer fail to properly maintain a grease interceptor, grease trap, or oil/water separator according to the provisions set herein the Assistant General Manager for Water/Wastewater Utilities or his/her designee may pursue one or more of the following actions:

- Issue a notice of violation to the customer
- Notify the Alachua County Health Department
- Notify Alachua County or City of Gainesville Codes Enforcement
- Perform maintenance on the grease interceptor, grease trap, or oil/water separator and charge the customer for the costs to perform the maintenance including administrative costs.
- Assess the customer excess strength charges including sampling, laboratory analysis, and administrative costs according to City of Gainesville Code of Ordinances, Appendix A, Schedule of Fees, Rates, and Charges.
- Terminate water and/or sewer service.

### **13.0 CORRESPONDENCE**

Address all correspondence (including completed maintenance forms) to the following address:

Oil & Grease Management Program  
Gainesville Regional Utilities  
P.O. Box 147117  
Interoffice Box A-122  
Gainesville, FL 32614-7117  
Fax: 352-334-2752  
Phone: 352-393-1652 or 393-1698



# **APPENDIX A**

  

# **GREASE INTERCEPTOR PERMIT APPLICATION**

**<<PLEASE SEE FILE: APPENDIX A – WASTEWATER GREASE TRAP /  
INTERCEPTOR PERMIT APPLICATION>>**

# **APPENDIX B**

## **GREASE INTERCEPTOR, GREASE TRAP, AND OIL/WATER SIZING CRITERIA**

**<<PLEASE SEE FILE: APPENDIX B – GREASE INTERCEPTOR, GREASE TRAP AND OIL/WATER SIZING CRITERIA>>**



# **APPENDIX C**

## **GREASE TRAP CONSTRUCTION STANDARDS – DOUBLE COMPARTMENT**

**<<PLEASE SEE FILE: APPENDIX C – GREASE TRAP CONSTRUCTION  
STANDARDS – DOUBLE COMPARTMENT >>**

# **APPENDIX D**

# **GREASE TRAP EVALUATION FORM**

**<<PLEASE SEE FILE: APPENDIX D – GREASE TRAP EVALUATION FORM>>**

**APPENDIX E**

**GREASE TRAP /  
INTERCEPTOR  
MAINTENANCE FORMS**

**<<PLEASE SEE FILE: APPENDIX E – GREASE TRAP / INTERCEPTOR  
MAINTENANCE FORMS>>**

**APPENDIX F**

**APPLICATION FOR  
VARIANCE OF MAINTENANCE  
FREQUENCY**

**<<PLEASE SEE FILE: APPENDIX F - APPLICATION FOR VARIANCE OF  
MAINTENANCE FREQUENCY>>**