

OIL AND GREASE MANAGEMENT MANUAL

PREPARED BY:

GAINESVILLE REGIONAL UTILITIES

Supplement to Ordinance No. 030278

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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 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.

GM – General Manager for Utilities or his/her designee

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 which does not exceed the concentration of any constituent for which a normal strength wastewater limit has been established by the general manager of utilities or his/her designee. A copy of the established normal strength wastewater limits shall be kept on file in the office of the general manager for utilities or his/her designee and made available on request. Customers discharging wastewater containing any constituent exceeding a normal strength wastewater limit may be charged for excess strength wastewater according to Appendix A of the Gainesville Code of Ordinances Chapter 27.

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 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 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 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 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, current edition, and other applicable State and local regulations. Design and construction shall be approved by the General Manager for Water/Wastewater Utilities or his/her designee. See Appendix for approved construction standards for grease interceptors.

Alternative oil and grease removal technologies shall be subject to written approval by the 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 for construction details).

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 General Manager for Water/Wastewater Utilities or his/her designee. Capacity shall be determined in accordance with the Grease Interceptor Sizing criteria (see Appendix) or other criteria as determined on a case-by-case basis.

The minimum capacity of any grease interceptor shall be 1000 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. All costs associated with proper maintenance of the grease interceptor, grease trap, or oil/water separator shall be borne by 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.

Repairs required by the 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 at a minimum frequency of monthly unless a different frequency is approved in writing by the General Manager for Water/Wastewater Utilities or his/her designee. 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. GRU reserves the right to require any customer to have the grease trap periodically pumped clean by a private contractor.

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 General Manager for Water/Wastewater or his/her designee.

No chemical additives may be used in a grease interceptor, grease trap or oil/water separator unless approved in writing by the General Manager for Water/Wastewater or his/her designee prior to introduction into the wastestream, interceptor, or separator. The use of chemical 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.

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 = CODout
Composite Chemical Oxygen Demand of Liquid Returned to Grease Interceptor = CODback
The alternative cleaning method is acceptable if, and only if:

$$\text{CODout} \times 0.2 > \text{CODback}$$

The alternative cleaning method must be approved in writing by the General Manager for Water/Wastewater or his/her designee. GRU reserves the right to increase the pumping frequency 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

Customers with grease interceptors or grease traps required by GRU to be pumped out by a private contractor shall be responsible for submitting to GRU proof of pumpouts within seven days of the due date. The due date shall be the last day of each month the grease trap is due to be pumped out. Proof of pumpouts shall be satisfied by submittal of pumpout records by a private contractor into the GRU Grease Hauler online database.

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 GRU using an approved dipping method or
- The solids layer on the bottom exceeds 8 inches in depth as measured by GRU using an approved dipping method or
- The total volume of captured grease and solid material displaces more than 25% of the capacity of the interceptor as calculated by GRU using an approved dipping method or
- The removal efficiency, as determined by GRU through sampling and analysis of COD or TSS, is less than eighty percent (80%).
- The grease interceptor is structurally deficient including but not limited to missing inlet or outlet tees, damaged baffle, incorrectly installed pass through, damaged walls, or insufficient access to all compartments.

10.0 VARIANCE PROCEDURE FOR GREASE INTERCEPTOR MAINTENANCE FREQUENCY

A food service facility may make written application to GRU for a variance of the monthly pumping requirements by submitting the Variance Application form (see Appendix). GRU shall determine if a variance is warranted based on the condition of the grease trap/interceptor, the nature of operations of the food service facility, the grease interceptor/trap capacity, and past history of any grease related problems downstream of the grease interceptor/trap.

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 by the 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 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.

Generally, enforcement action procedures will be conducted in accordance with the following tables, however, the General Manager for Utilities or his/her designee may take additional action:

Enforcement Response for Non-Compliance		
Violation	Violation Frequency	Penalty
Failure to perform pump-outs or repairs as required by GRU resulting in needed maintenance on the City sewer system.	Any occurrence	Customer will reimburse GRU for cost of maintenance & administrative costs.
Failure to perform pump-outs as required by GRU. No GRU-required maintenance to the City sewer.	Third and any succeeding occurrence in any 12-month period.	Minimum \$500 fine or pump-out scheduled by GRU + \$250 fine..
Failure to perform pump-outs as required by GRU after notice was given by GRU. No GRU-required maintenance to the City sewer.	Any occurrence	Minimum \$500 fine or pump-out scheduled by GRU + \$250 fine
Any missed pump-out while on a compliance schedule.	Any occurrence	Minimum \$500 fine or pump-out scheduled by GRU + \$250 fine.
Failure to submit proof of pump-outs, clean-outs, pumping contracts or repairs to GRU within 14 days of the GRU-required due date.	Any occurrence	Minimum \$200 fine plus \$20 for each day late past 15 days.
Failure to install or make repairs by the due date after notice given by GRU.	Any occurrence	Minimum \$200 fine plus \$20 for each day late past 15 days.
Continued non-compliance with pump-out, installation or repair requirement.	Any occurrence	Inspection by GRU. Notification of non-compliance to customer for <u>emergency</u> suspension of service. Emergency suspension of service per City Ordinance Section 27-180.7(h).

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

- Submit proof of any pumpout, clean-out, pumping contract, or repair by the due date required by GRU
- Properly maintain the grease interceptor, grease trap or oil/water separator including failure to make necessary repairs
- Maintain records on-site of pump-outs/clean-outs for grease traps/interceptors
- Obtain a grease trap/interceptor discharge permit

If GRU determines that a customer has failed to maintain the required cleaning frequency in accordance with the provisions of this manual, the grease trap/interceptor permit issued, or written notice from GRU, GRU reserves the right to issue a compliance schedule to the customer.

Notwithstanding any of the enforcement actions provided above, should a customer fail to install, repair or properly maintain a grease interceptor, grease trap, or oil/water separator according to the provisions set herein the General Manager for Water/Wastewater Utilities or his/her designee may pursue one or more of the following actions:

- Administer fines up to \$1000 per day per violation in accordance with Gainesville Code of Ordinances Section 27-180.7(h) until compliance is achieved.
- 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 sewer service.

13.0 APPEALS

A customer may petition the general manager for utilities or his/her designee to reconsider a requirement contained in a grease trap/interceptor permit or a requirement or penalty contained in a notice of non-compliance with any provision of this manual.

Failure to submit a petition to the general manager for utilities or his/her designee within 30 days of permit issuance or within 30 days of delivery of a notice of non-compliance shall be deemed to be a waiver of the appeal.

In its petition, the appealing party must indicate the requirements objected to, the reasons for the objection, and any alternative conditions sought.

Requirements of the grease trap/interceptor permit issued or requirements of a notice delivered to the customer to comply with any provision of this manual shall not be stayed pending the appeal.

If the general manager for utilities or his/her designee fails to act within 30 days, a request for reconsideration shall be deemed to be denied. Decisions not to reconsider any requirement or penalty imposed shall be considered final administrative actions in the appeals process.

14.0 CORRESPONDENCE

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

Oil & Grease Management Program
Gainesville Regional Utilities
P.O. Box 147117
Station E3-F
Gainesville, FL 32614-7117
Fax: 352-334-2752 Phone: 352-393-1286 or 352-316-0468

APPENDIX



GREASE TRAP/INTERCEPTOR PERMIT

APPLICANT (OWNER) NAME _____

FACILITY NAME _____ PHONE _____

FACILITY ADDRESS _____

TYPE (Sit Down/TakeOut/Drive-Through) _____

MAXIMUM SEATING CAPACITY _____ MAXIMUM HOURS OF OPERATION PER DAY _____

TYPE OF DEVELOPMENT _____

FOOD PREPARATION (check any that apply)

- Deep Frying Pan Frying
- Grilling Heating
- Baking PrePrepared Food

KITCHEN EQUIPMENT

- Dishwasher Dishwasher Flow _____ (gpm)
- Garbage Disposal
- 3-CompartmentSinks: Quantity _____
- Inside Dimensions of 3-Comp. Sink Bowl (inches)
- Depth _____ Width _____ Length _____
- Total # of Kitchen Sinks _____ Pipe Diameter _____
- Total # of Floor Drains _____ Pipe Diameter _____

PRETREATMENT (check if present & provide size)

- Existing Grease Trap _____
- Rating or Size _____

I hereby certify that the above information is correct. I am aware that changes in any of the above information will require a re-application and possible increase in the size or type of grease trap/interceptor required. I agree to have the grease trap/interceptor cleaned/pumped out at the minimum frequently as determined below or more frequently if needed, to maintain the grease interceptor in proper operating condition. I agree to submit proof to GRU within 7 days of each pump out of the trap/interceptor by a certified grease hauler. If the trap/interceptor is maintained by facility personnel, I agree to submit to GRU semi-annually a copy of all mainenance performed within the previous six months. This permit is valid only for the specific facility, ownership, processes and operations indicated above. As such, it cannot be sold, transferred, or reassigned.

Applicant Signature _____

Date _____

Applicant Email _____

PERMIT REQUIREMENTS (To be completed by GRU Water/Wastewater Engineering)

TYPE of TRAP/INTERCEPTOR: _____ SIZE: _____

PUMPOUT/CLEAN-OUT FREQUENCY: _____

OTHER REQUIREMENTS:

Requirements of this permit including pumping frequency and grease trap/interceptor size are subject to change with change in operations or collection system problems.

GRU Rep: _____ DATE: _____

Oil & Grease Management Program, PO Box 147117, Station E3-F, Gainesville, FL 32617-7117
 Fax: 352-334-2752, Phone: 352-393-1698

GREASE INTERCEPTOR SIZING

Designation of a trap or interceptor will be determined by GRU. GRU may allow a trap to be used in certain instances where an interceptor cannot be located due to site conditions.

Grease Interceptor Sizing Formula

(GRU may use other sizing criteria determined on a case-by-case basis)

$$GI = SC * FF * RT * SF$$

GI = grease interceptor volume, gallons

SC = seating capacity (# of seats)

RT = retention time, hours = 2.5

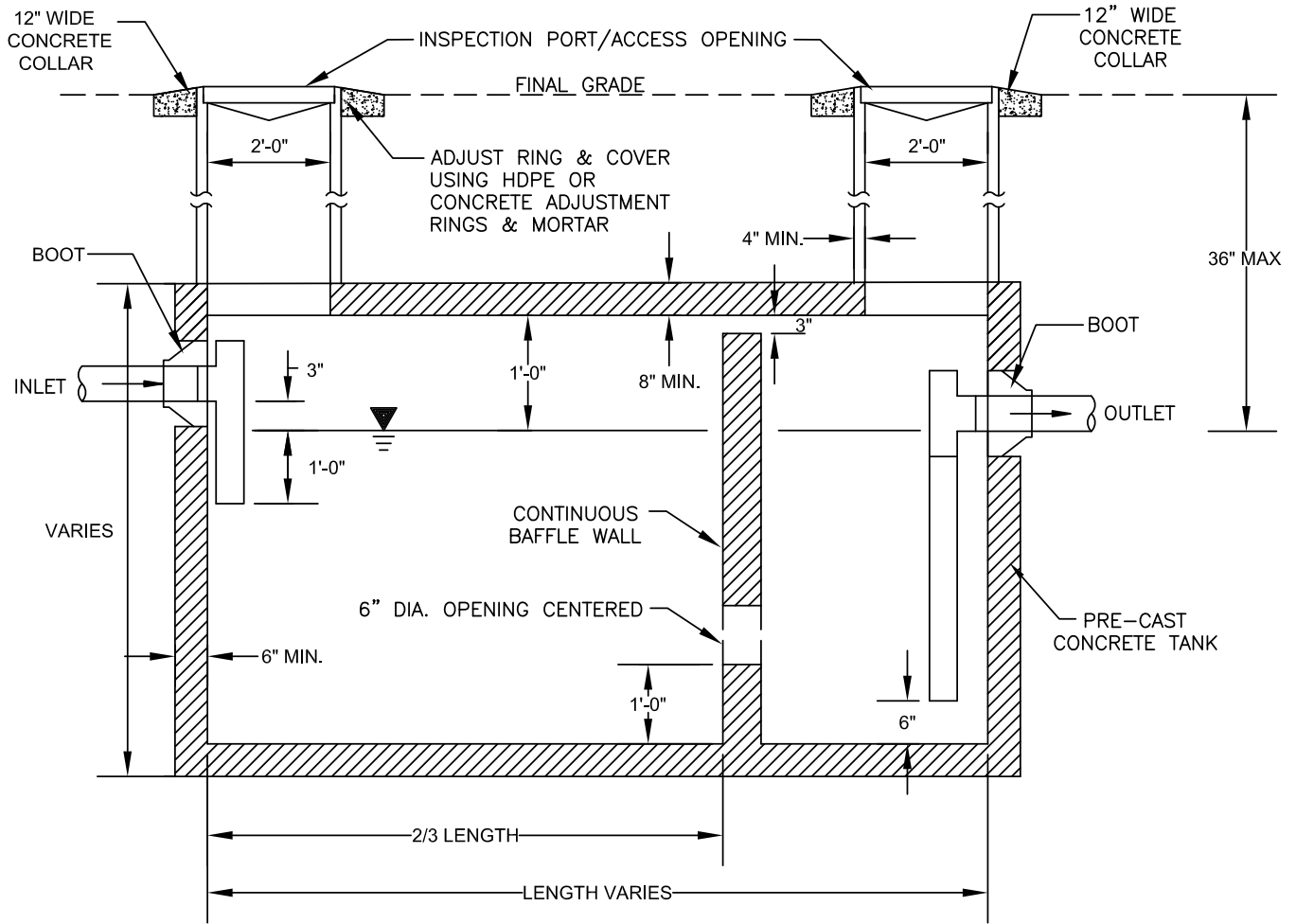
SF = storage factor, dimensionless = 1.5

FF = flow factor criteria in gallons/meal-hour determined using following criteria:

Deep frying and dishwasher	FF = 3.0
No deep frying, dishwasher	FF = 2.5
Deep frying, disposable servingware	FF = 2.5
No deep frying, reusable servingware, no dishwasher	FF = 2.0
No deep frying, disposable servingware	FF = 1.5
No cooking of any type, disposable servingware	FF = 0.5


If the facility has drive-through service, the size should be increased by 35% of the calculated size using the above formula.

Minimum size is 1000 gal.



NOTES:

1. TANK VOLUME TO BE DETERMINED BY GRU UPON APPLICATION BY OWNER, STRUCTURAL DESIGN SHALL BE THE RESPONSIBILITY OF THE TANK MANUFACTURER.
2. ONLY KITCHEN WASTE SHALL BE DISCHARGED INTO THE GREASE TRAP. ALL DOMESTIC WASTE (i.e. RESTROOMS) SHALL BE CONNECTED DOWNSTREAM OF THE GREASE TRAP.
3. MANHOLES WHICH ARE NOT INSTALLED UNDER PAVEMENT SHALL HAVE A RIM ELEVATION AT LEAST 6" ABOVE FINISHED GRADE, AND A 10:1 SLOPE TO FINISHED GRADE.
4. GREASE TRAP ASSEMBLY TO BE H-20 TRAFFIC LOAD RATED - INCLUDING TANK, TANK LID, CHIMNEYS AND MANHOLE RING & COVER.
5. NO CAPPED TEES.

<p>Revision Date: 01/09/19</p>		<p>Gainesville Regional Utilities Wastewater Construction Details GREASE TRAP</p>
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Grease Interceptor Pumping Schedule Guidelines¹

Every 30 days	Every 60 days	Every 90 days	Every 6 Months	Once a Year	As Needed
Cooking activities that requires fats, oils, or grease. or,	Cooking activities that requires fats, oils, or grease. or,	No cooking activities that requires fats, oils, and grease. and,	No cooking activities that requires fats, oils, and grease. and,	No cooking activities that requires fats, oils, and grease. and,	No restaurant or food activities on site.
Food preparation or disposal that discharges fats, oils, or grease. and,	Food preparation or disposal that discharges fats, oils, or grease. and,	-----	-----	-----	Pump if necessary on annual inspection by GRU.
Greater than 40 hours of operation per week ² .	Less than or equal to 40 hours of operation per week ² . and,	Greater than 40 hours of operation per week ² and,	Less than or equal to 40 hours of operation per week ² and,	Less than or equal to 8 hours of operation per week ² and,	-----
-----	Appropriately sized grease interceptor ³ .	Appropriately sized grease interceptor ³	Appropriately sized grease interceptor ³	Appropriately sized grease interceptor ³	-----

¹GRU may require a different pumping schedule according to the criteria in Section 10.

²Hours of operation will be those posted from opening to close for each establishment or the time during which food is being prepared and served, whichever is greater.

³Grease interceptor sized according to GRU criteria.

APPLICATION FOR VARIANCE OF MAINTENANCE FREQUENCY

Facility Name	
Facility Address	
Phone	
Contact Person	
Name of Maintenance Firm	
Address	
Phone	
Contact Person	
License or Permit #	
Next Maintenance Date	
FACILITY SIGNATURE: _____ DATE: _____	

MAINTENANCE REQUIREMENTS (TO BE COMPLETED BY GRU)

Frequency ¹	Nature of Operations
< 30 days	30 day maintenance frequency not adequate for compliance
30 days	Frying or food prep which discharges grease, > 40 hrs operation/week ²
60 days	Frying or food prep which discharges grease, <= 40 hrs operation/wk, appropriately sized grease trap/interceptor ³
90 days	No frying or food prep which discharges grease, > 40 hrs operation/wk, appropriately sized grease trap/interceptor ³
180 days	No frying or food prep which discharges grease, <= 40 hrs operation/wk, appropriately sized grease trap/interceptor
1 year	No frying or food prep which discharges grease, <= 8 hrs operation/wk, appropriately sized grease trap/interceptor
As requested by GRU	No food prep
1. Maintenance frequency may be determined solely on results of inspection by GRU. 2. Hours of operation will be those posted from opening to close, or time during which food is prepared and served, whichever is greater. 3. Grease traps shall be sized according to GRU criteria	
SIGNATURE: _____ DATE: _____	