



GREASE TRAP/INTERCEPTOR POLICY

Revised July 19, 2017

ISLE OF PALMS WATER & SEWER COMMISSION

1300 PALM BLVD, ISLE OF PALMS, SC 29451 (843) 886-6148

TABLE OF CONTENTS

GREASE TRAP/INTERCEPTOR POLICY

I.	INTRODUCTION	
II.	GENERAL INFORMATION	
2.1	DEFINITIONS	1-3
2.2	GENERAL REQUIREMENTS.....	3
2.3	INSPECTION.....	3
2.4	APPROVAL PROCESS.....	4
III.	DESIGN AND INSTALLATION	
3.1	GENERAL REQUIREMENTS.....	4
3.2	TYPES OF SYSTEMS.....	5
3.2.1	<i>EXTERIOR GREASE INTERCEPTORS</i>	5
3.2.2	INTERNAL GREASE INTERCEPTORS.....	6
3.2.3	OIL / WATER SEPARATORS	6
3.2.4	SAND INTERCEPTORS.....	6
3.3	DESIGN	
3.3.1	SIZING OF EXTERNAL GREASE INTERCEPTORS	6
3.3	INSTALLATION	7
IV.	CUSTOMER (GENERATOR) RESPONSIBILITIES	
4.1	RESPONSIBILITIES.....	8
4.2	MAINTENANCE.....	8
4.3	REQUIREMENTS.....	8
4.3.1	INTERCEPTOR MAINTENANCE SERVICE CONTRACT	8
4.3.2	REQUIRED PUMPING FREQUENCY.....	9
4.3.3	REQUIREMENT FOR INCREASED PUMPAGE OR SERVICING	9
4.3.4	CLEANING PROCEDURES	9
4.3.5	DISPOSAL OF INTERCEPTOR PUMPAGE.....	10
4.3.6	INTERCEPTOR MAINTENANCE REPORT.....	10
4.3.7	PERMIT RENEWAL.....	10
V.	COMPLIANCE AND ENFORCEMENT	
5.1	DETERMINATION OF COMPLIANCE WITH MAINTENANCE REQUIREMENTS	10
5.2	ENFORCEMENT	11
VI.	APPENDIX	
6.1	PERMIT APPLICATION FOR GREASE INTERCEPTORS/TRAP, OIL/WATER SEPARATOR, OR SAND INTERCEPTOR.....	A1
6.2	TYPICAL GREASE INTEREPTOR & OIL/WATER SEPARATOR: SINGLE CHAMBER	A2
6.3	TYPICAL GREASE INTEREPTOR & OIL/WATER SEPARATOR: DOUBLE CHAMBER.....	A3
6.4	ANNUAL GREASE HAULING AGREEMENT SUMMARY FORM.....	A4

6.5	HAULER MANIFEST & INSPECTION REPORT	A5
6.6	ANNUAL PERMIT RENEWL APPLICATION FOR GREASE INTERCEPTOR/TRAP, OIL/WATER SEPARATOR, OR SAND INERCEPTOR.....	A6
6.7	ANNUAL INSPECTION FORM FOR GREASE INTERCEPTOR/TRAP, OIL/WATER SEPARATOR, OR SAND INTERCEPTOR.....	A7

GREASE TRAP / INTERCEPTOR POLICY

I. INTRODUCTION

Wastewater discharge containing high concentrations of fats, oils, and grease (FOG) from food service is the main cause of blockages and overflows in the wastewater collection system. Overflows of wastewater into the storm water 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 Isle of Palms Water & Sewer Commission (IOPWSC) has developed a Fat, Oils and Grease (FOG) management program which includes the following objectives:

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

II. GENERAL INFORMATION

2.1 Definitions

- A. Approved: Describing the method or design that is acceptable to IOPWSC.
- B. Customer (Generator): 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.
- C. Effluent: Wastewater or other liquid flowing from a facility, reservoir, or basin.
- D. Fats, Oils, and Grease (FOG): Includes fatty acids, soaps, fats, waxes, petroleum products, and any other material which is extracted by the solvent (Hexane or Freon) and which is not volatilized during evaporation of the solvent.
- E. Food Service Establishment: Any commercial facility discharging kitchen and/or food preparation wastewater including restaurants, motels, hotels, cafeterias, bars, etc. and any other facility which, in the IOPWSC's opinion would require a grease interceptor installation by virtue of its operation.
- F. Grease: A liquid or a solid material composed primarily of fats and oils from animals or vegetable sources.
- G. Grease Hauler: A person who collects the contents of a grease interceptor and/or transports it to an approved recycling or disposal facility.
- H. Grease Trap/Interceptor: Flootation chambers where grease floats to the water surface and is retained while the clearer water underneath is discharged. There are no moving mechanical parts, and the design is similar to that of a septic tank.
- I. Gravity Grease Interceptor: A plumbing appurtenance or appliance that is installed in a sanitary drainage system to intercept nonpetroleum fats, oils, and greases (FOG) from a wastewater discharge and is identified by volume, 30-minute retention time, baffle(s), not less than two compartments, a total volume of not less than 500 gallons, and gravity separation. Gravity grease interceptors may be made of concrete, fiberglass, or polyethylene, and shall be installed outside.
- J. Hydromechanical Grease Interceptor: A plumbing appurtenance or appliance that is installed in a sanitary drainage to intercept nonpetroleum fats, oils, greases (FOG) from a waste water discharge

and is identified by flow rate, and retention and separation efficiency. The design incorporates one of the following:

- A – External flow control, with air intake (vent), directly connected.
- B – External flow control, without air intake (vent), directly connected.
- C – Without external flow control, directly connected.
- D – Without external flow control, indirectly connected.

K. Isle of Palms Water and Sewer Commission (IOPWSC): A publicly elected group of officials who regulate, recommend, and enforce the rules of operation for the water and sewer services for the Isle of Palms.

L. Manifest: A list or invoice document grease interceptor pump out.

M. Normal Strength Wastewater: Wastewater with constituents which do not exceed the flowing limits:

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

- N. Oil/Water Separator: A device designed to remove oil (e.g. petroleum-based) from the waste stream while allowing the remaining wastewater to be discharged to the wastewater collection system by gravity. This type of device shall be utilized at, but not limited to, mechanical maintenance repair shops, car washes and businesses where floor drain collect motor oil, transmission fluid, lubricating oil, grease and hydraulic oil, etc.
- O. Sand Interceptor: A device used to separate sand and other soils from the waste stream before discharging to the wastewater collection system.
- P. SCDHEC: South Carolina Department of Health and Environmental Control. A state agency that establishes, regulates, and enforces the environmental and health standards for the state of South Carolina.

2.2 General Requirements

All facilities that prepare, process or services food as determined by the General Manager or his/her designee are required to have a FOG Interceptor Discharge Permit issued by IOPWSC and an approved grease interceptor.

The FOG Interceptor Discharge Permit for any facility shall be renewed annually or earlier if there is a significant change in operation including facility expansion, remodeling that requires a plumbing permit, change in ownership, or new grease hauler contract.

Multifamily dwellings which are found by IOPWSC 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 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 to install an approved oil/water separator.

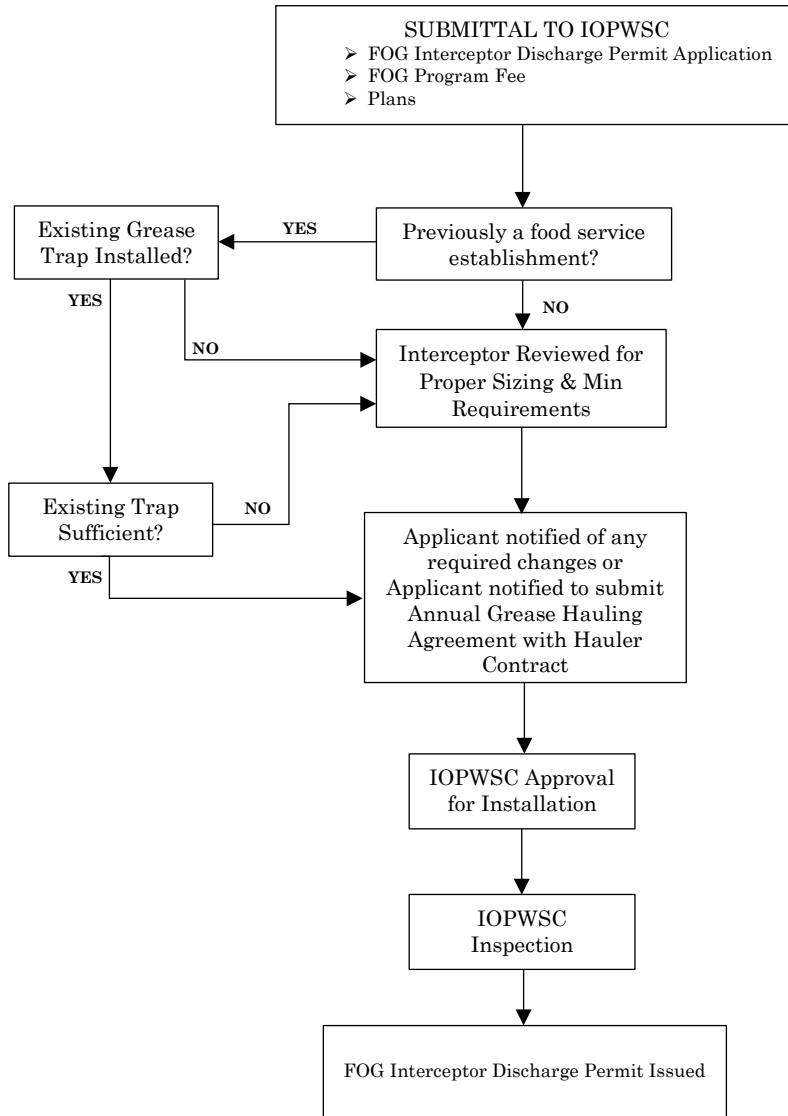
Grease interceptors, oil/water separators, and sand interceptors shall be installed solely at the generator's expense. Proper operation, maintenance, and repair of grease interceptors, oil/water separators, and sand interceptors shall be done solely at the generator's expense.

2.3 Inspection

All generators with interceptors, oil/water separators will be inspected in accordance with the inspection schedule listed on the FOG Interceptor Discharge Permit to ensure compliance with this policy. Results of inspections will be made available to facility owners, with recommendations for correction and/or improvement (if necessary).

2.4 Approval Process

IOPWSC’s process for determining type of Grease Trap/Interceptor required outlined on the flow chart below:



2.5 *All customers required by IOPWSC to have a Grease Trap/Interceptor or Separator are subject to all applicable rates and fees in accordance with the most recently approved IOPWSC fee schedule.*

III. DESIGN AND INSTALLATION

The following administrative, operational, and other general requirements are applicable to ALL restaurants and other food service facilities, new or existing. Particular requirements for Grease Trap/Interceptor construction, specifically pertaining to both new and existing establishments are set forth in Section III of this policy.

3.1 General Requirements

All Grease Trap/Interceptors, oil/water separators, and sand interceptor plans and specifications must be reviewed and approved by IOPWSC prior to installation. *(Appendix A1)*

These requirements are applicable to all automotive and commercial food service establishments, including those that are undergoing:

- New construction;
- Interior remodeling to accommodate expansion or operational modifications;
- Changes of ownership/occupancy; and
- Facilities, which may be experiencing difficulty in achieving compliance with maintenance and/or wastewater discharge limitations.

3.2 Types of Systems

There are three (3) primary types of devices. The most common are the types specified by the American Society of Mechanical Engineers, utilizing baffles, or a proprietary inlet diffuser.

- A. The most common, passive Grease Trap/Interceptors, are small point of use units used under three compartment sinks within the kitchen. They restrict flow and remove 85-90% of incoming FOG. Food Solids along with fats, oils, and grease are trapped and stored in these devices. Passive Grease Interceptors must be pumped out monthly for adequate efficiency.
- B. The second most common type of interceptor is the large in-ground tank, which is usually 500-2000 gallons. These units are constructed of concrete, fiberglass, or steel. By nature of their larger size, they have larger grease and solid storage capacities for high-flow application such as a restaurant. They are commonly called gravity interceptors. Interceptors require a retention time of 30 minutes to allow the fats, oils, grease and food solids to settle in the tank. As more wastewater enters the tank the grease free water is pushed out of the tank. Gravity interceptors must be pumped out monthly for adequate efficiency.
- C. A third system type GRDs (Grease Recovery Devices), remove the surface grease automatically when trapped. Grease removal is by hydrostatic pressure or motorized skimmer device or sensor driven automatic drawn-off system. GRD's recover 99% of the fats, oils, and grease from restaurant wastewater. They have an internal strainer basket for food particles, an internal heater element, and an external collection container for removal of grease/oil to recycling container. Recovered grease is recycled daily for future biodiesel use. No rancid odors are emitted from a GRD as the food waste is emptied daily. GRDs are assisted by electrical heaters to the grease in liquid form.
- D. Grease Interceptor chemicals, bacteria and enzyme products or combination of Passive Grease Interceptors (Grease Converters) are generally not accepted in North America. Grease Trap/Interceptor additives have not been tested or proven by any government certified organization.
- E. The following requirements are applicable to all businesses, new or existing, that discharge waste such as oils, grease, wax, fats, sludge, soils, sand, stone, etc.:
 1. All Grease Trap/Interceptors, oil/water separators and sand interceptors shall be designed and installed in accordance with this policy.
 2. All installations must be on private property and must be readily accessible for inspections and maintenance.
 3. Only wastewater discharges from kitchen facilities (i.e., sinks, low temp dishwashers, floor drains, etc.) shall pass through the grease interceptor. Discharges from restrooms shall enter the wastewater service lateral downstream of the Grease Trap/Interceptor.

3.2.1 Exterior Grease Trap/Interceptors

- All newly constructed food service establishments shall be required to install an exterior type of grease interceptor approved in advance by the IOPWSC. New food service facilities will not be allowed to initiate operations until grease handling facilities are installed and approved by IOPWSC.
- All Grease Traps/Interceptors must be directly accessible from the surface and must be fitted with an extended sanitary tee outlet that terminates 6" to 12" above the tank floor. The minimum access opening dimensions shall be 18" x 18". (*See Appendix 2: Typical Grease Interceptor & Oil/Water Separator: Single Chamber*)

- All Grease Traps/Interceptors serving fixtures where the total wastewater flow exceeds 1500 GPD must either be two-chambered or individual tanks in a series. If two-chambered, the dividing wall must be equipped with an extended elbow or sanitary tee terminating 6” to 12” above the tank floor. An extended outlet sanitary tee must also be provided at the outlet of the second chamber. Both chambers must be directly accessible from the surface. (See Appendix 3: Typical Grease Interceptor & Oil/Water Separator: Double Chamber)

3.2.2 Internal Grease Trap/Interceptors

Cases in which exterior type Grease Trap/Interceptors are not feasible to install as determined by the IOPWSC, owners will be required to install Internal Grease Trap/Interceptors. These units shall be connected to individual fixtures, including low temp dishwashers, sinks, and other drains with a potential for receiving grease. In such cases, units will be considered acceptable only if the approved flow control fittings are provided to prevent overloading of the Grease Trap/Interceptor and to allow for proper operation.

3.2.3 Oil/Water Separators

All facilities where floor drains are subject to collecting motor oil, transmission fluid, hydraulic oil, grease, etc., shall install an oil/water separator. The design and location shall be approved by IOPWSC prior to installation. The facilities will not be allowed to initiate operations until the oil/water separators are inspected and approved by IOPWSC. Minimum size of the oil/water separators shall be 1000 gallons.

3.2.4 Sand Interceptors

All facilities where floor drains are subject to collecting sand, grit, and other solids shall install sand interceptors. The design and location shall be approved by IOPWSC prior to installation. These facilities will not be allowed to initiate operations until sand interceptors are inspected and approved by IOPWSC.

3.3 Design

Sizing methods described herein are intended as guidance in determining Grease Trap/Interceptor sizes that will afford IOPWSC a minimum degree of protection against grease and other obstructing materials. Sizing determinations are based on operational data provided by business owners or their engineers/contractors. In approving a generators’ plumbing or Grease Trap/Interceptor design, IOPWSC does not accept liability for the failure of a system to adequately treat wastewater to achieve effluent quality requirements specified in IOPWSC’s Policies. It is the responsibility of the generator and/or engineer/contractor to ensure the appropriate level of treatment necessary for compliance with environmental and wastewater regulations.

3.3.1 Sizing of External Grease Trap/Interceptor:

Grease Trap/Interceptors shall typically be sized by the required grease capacity to support a pump-out frequency of 90 days. Grease capacity shall be calculated per the formula below:

$$\begin{array}{ccccccc}
 \boxed{\text{Total \# of Seats}} & \times & \boxed{\text{Meals/Day Each Seat 2}} & \times & \boxed{\text{Grease Production Per Meal (lbs) Refer to the Grease Production Table Below}} & \times & \boxed{\text{90 Day Pump Out Cycle}} = \boxed{\text{Required Grease Capacity (lbs)}}
 \end{array}$$

GREASE PRODUCTION PER MEAL (lbs)			
Grease Production Rate	Typical Examples	No Flatware (lbs/meal)	Flatware (lbs/meal)
Low	Sandwich Shop, Convience Store, Bar Sushi Bar, Delicatessen, Snack Bar, Frozen Yogurt, Hotel Breakfast Bar, Residential, etc.	0.005	0.0065
Medium	Coffee House, Pizza, Grocery Store (no fryer), Ice Cream Parlor, Japanese, Cafeteria (no food prep), Fast Food, Greek, Indian, etc.	0.025	0.0325
High	Cafeteria, Family Restaurant, Italian, Steak House, Bakery/Donut Shop, Chinese, Buffet, Mexican, Seafood, BBQ, Fried Chicken, Grocery Store	0.035	0.0455

IOPWSC reserves the right to size Grease Trap/Interceptors in lieu of, or in addition to, the required grease capacity using alternative methods that include, but not limited to the following:

- A. Maximum flow when the type, size, and number of fixtures discharging into the interceptor is known.
- B. Maximum flow based on pipe diameter and slope
 - 1. Used when the final configuration of fixtures is not known or to allow for additional fixtures in the future and provide the maximum flow the facility will be able to carry.
- C. Minimum acceptable Grease Trap/Interceptor sizing shall be accomplished as follows:
 - 1. The minimum size of an exterior Grease Trap/Interceptor is 1,000 gallons. The generator may supply sizing information for a smaller Grease Trap/Interceptor and request IOPWSC to consider a lesser size. However, under no circumstances should exterior Grease Trap/Interceptors have a capacity of less than 500 gallons.
 - 2. The minimum flow rate for approved Grease Trap/Interceptors is 25 gpm, unless otherwise approved in advance by IOPWSC. The manufacturer's recommended flow rate (gpm) for the interceptor shall be certified to ASME A112.14.3 Standard.
 - 3. In the circumstances of "single service kitchens" with no food preparation (heat/serve only), and which use only paper service items, a smaller Grease Trap/Interceptor may be used and must be approved in advance by IOPWSC. In these instances, the interceptor must be readily accessible for cleaning and maintenance.

3.4 Installation

- A. All permitting, construction, and inspection activities must be completed in accordance with all IOPWSC current policies, standards, permits, and guidelines.
- B. Grease Trap/Interceptors are to be installed at a minimum distance of 10-feet from sinks and dishwashers to allow for adequate cooling of wastewater. Water temperatures must be less than 140° Fahrenheit prior to entering the Grease Trap/Interceptor.
- C. All grease bearing waste streams should be routed through an appropriate Grease Trap/Interceptor, including: three (3) compartment sinks, pot/pan sinks, soup kettles, hand-washing sinks, low temp dishwashers, interior mop sinks, and floor drains.
- D. The following fixtures SHALL NOT be connected to a Grease Trap/Interceptor: Garbage disposals, high temp dishwashers (water temperatures greater than 140° F) and exterior mop sinks.
 - 1. Notable Exceptions: Drains that receive "clear waste" only, such as ice machines, condensate from coils, and drink stations, may be plumbed to the wastewater collection system without passing through the Grease Trap/Interceptor with the condition that the receiving drain is a "hub" type that is a minimum of two inches above the finished floor.
 - 2. Sample Port: A sample port shall be installed on the effluent line of the Grease Trap/Interceptor. The port shall be a minimum of four inches in diameter and be connected to

the wastewater line at a 90-degree angle to allow for visualization and sampling activities. The port shall be installed in such a manner as to be protected from storm water contamination and maintained in a safe and proper operating condition. The plug on the sample port must be easily removed from the pipe.

IV. CUSTOMER (GENERATOR) RESPONSIBILITY

4.1 Responsibilities

It is the responsibility of the customer (generator) to ensure compliance with IOPWSC discharge limitations.

- A. Enzymes, solvents, and emulsifiers are not permitted, as they will only change the form of grease, allowing it to be carried out of the interceptor with the wastewater and deposited in the collection system. Biological treatment systems must be preapproved by IOPWSC. These systems will not alleviate the necessity for inspections and proper maintenance.
- B. Hazardous wastes, such as acids, strong cleaners, pesticides, herbicides, paint, solvents, or gasoline should not be disposed of where they would go through grease or grit traps. If commercial dishwashers are discharged through a Grease Trap/Interceptor, care must be taken in system design. Dishwashers use detergents and elevated water temperatures that will melt grease. If the interceptor is either too small or too close to the commercial dishwasher, grease may pass through the interceptor and into the collections system.
- C. Generators are responsible for maintaining Grease Trap/Interceptors in continuous proper working condition. Further, generators are responsible for inspecting, repairing, or installing apparatus and equipment as necessary to ensure proper operation and function of Grease Trap/Interceptor and compliance with discharge limitations at all times. All interceptors shall be maintained by the waste generator at the waste generator's expense.
- D. The generator must have a Grease Trap/Interceptor service contract (for plumbing cleaning, and inspection) with a IOPWSC approved waste hauler, at a minimum frequency of every 90 days (*maintenance frequency assumes proper sizing and installation consistent with this policy*) so that the combined fats, oils, grease, and solids accumulation does not exceed 25% of the total hydraulic depth of the equipment. The interceptor shall be maintained more frequently if needed to meet IOPWSC discharge criteria. Records of maintenance are required to be maintained for five (5) years.

4.2 Maintenance

Cleaning and maintenance of the Grease Trap/Interceptor or oil/water separator shall be the responsibility of the generator. It shall be the responsibility of the generator to inspect the Grease Trap/Interceptor 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, or separator are in working condition and functioning properly.

4.3 Requirements

Grease Trap/Interceptor waste generators shall meet all applicable requirements regarding the accumulation, generation, and disposal of waste in IOPWSC's service area in accordance with IOPWSC policies.

4.3.1 Interceptor Maintenance Service Contract:

All grease generators having interceptors shall perform all business transactions relating to interceptor pumping, cleaning, and servicing, and to liquid waste collection, transportation and/or disposal on a contractual basis via a written contract having a duration of at least one year, and provide copies of all such contracts to IOPWSC using *Appendix 4 Annual Grease Hauling Agreement Summary Form*. Any modifications or changes to the contract must be submitted to IOPWSC within ten (10) calendar days of the change or modification. It is a violation for a grease generator to discharge through an interceptor without a FOG Interceptor Discharge Permit.

A Contract shall include as a minimum the following items:

1. Customer name, address, and telephone number, and the name, address, and telephone number of the facility to be services if different.
2. Contain the name of the primary and secondary contact person for the facility.
3. Contain the Grease Trap/Interceptor Permit Number of the facility.
4. Indicate the size of each interceptor.
5. Indicate the precise and unambiguous location of the interceptor(s) to be serviced, including a diagram if necessary.
6. Hauler name, address and telephone number, and primary contact.
7. Indicate the frequency of pumping required.
8. Be signed and dated by an authorized IOPWSC representative indicating acceptance of the terms of the contract.
9. Contain a statement of the duration of the contract, not to be less than one year, or for the duration of the operation of the facility, whichever is less.

4.3.2 Required Pumping Frequency:

1. Unless otherwise specified by IOPWSC in advance, each interceptor in active use shall be cleaned at least once every quarter or more frequently as needed to prevent carryover of grease into the collection system, unless it can be demonstrated to IOPWSC that the pumping frequency can be performed less frequently. IOPWSC may specify cleaning more frequently when quarterly pumping is shown to be inadequate. Additional pumping may be required during time periods where increased loading is anticipated. Any grease generator desiring a schedule less frequent than quarterly shall submit a written request to IOPWSC along with testing (as required by IOPWSC).
2. Grease Trap/Interceptors shall be pumped out completely in accordance with the minimum frequencies outlined above, or more frequently as needed to prevent carryover 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.
3. Oil/water separators shall be cleaned out completely a minimum frequency of once every six (6) months or more frequently as needed to prevent carryover of petroleum based products into the collection system.
4. At any time if an inspection finds the interceptor to be full, immediate steps shall be taken by the grease generator to pump out and clean it as soon as is practicable. The inspector shall make an evaluation of the advisability of allowing discharge to continue, and may at his/her discretion order an immediate cease of all discharge from the facility. In any case, the FOG Interceptor Discharge Permit for the establishment may be amended so as to compel more frequent pumping and cleaning of the interceptor.

4.3.3 Requirement for Increased Pumping or Servicing:

1. If IOPWSC finds that a change in pumping or servicing of an interceptor is necessary for an establishment to meet the discharge limits stated in this policy, IOPWSC may order a change in pumping or servicing of an interceptor.
2. If IOPWSC orders a change in the pumping or servicing, the IOPWSC shall serve notice of such order upon the generator.
3. Non-compliance after 15-calendar days, may result in disconnection of service.

4.3.4 Cleaning Procedures:

1. The generator shall supervise the interceptor cleaning, and shall be physically present and observe the entire cleaning operation.
2. A generator shall cause the liquid waste hauler, transporter, or any other person cleaning, or servicing an interceptor to completely evacuate all contents, including floating

materials, wastewater, and bottom sludges and solids, of all grease and/or grit interceptors and other interceptors during servicing. Skimming the surface layer of waste material, partial cleaning of the interceptor or use of any method that does not remove the entire contents of the collection device is prohibited. The suction of the floating materials shall be done prior to removal of other contents. After complete evacuation, the walls, top, and bottom of the interceptor shall then be thoroughly scraped and the residue removed. The interceptor shall then be washed down and the residue removed. Upon completion of the servicing, the generator shall make an inspection of the interior of the interceptor and then personally sign the trip ticket.

3. It shall be unlawful for a generator to allow the discharge of liquid, semi solids, or solids back into an interceptor during and/or after servicing. Decanting or discharging of removed waste back into the interceptor from which the waste was removed or any other interceptor, for the purpose of reducing the volume to be disposed is prohibited.
4. Each interceptor pumped shall be fully evacuated unless the interceptor volume is greater than the tank capacity so that the interceptor is fully evacuated within a 24-hour period.

4.3.5 Disposal of Interceptor Waste:

All waste removed from each interceptor shall be disposed of at a facility permitted and authorized to receive such waste in accordance with all applicable Federal, State, and local regulations. In no way shall the waste be returned to any private or public portion of IOPWSC's collection system without IOPWSC's prior written approval. Violating this requirement may lead to disconnection of water service to the property and/or fees. The waste hauler will not be allowed to perform services for the IOPWSC customers with permits and will be reported to the City of the Isle of Palms and SCDHEC.

4.3.6 Interceptor Maintenance Reporting:

1. Every generator having an interceptor shall maintain an Interceptor Maintenance Log indicating each pumping for the previous 12-months. This log shall include the date, time, amount pumped, hauler, and disposal site, and shall be kept in a conspicuous location on the premises of the facility for inspection.
2. Grease haulers shall provide a Manifest Report, See *Appendix 5: Hauler Manifest & Inspection Report*, on behalf of the generator to IOPWSC within 14 days of the interceptor cleaning.

4.3.7 Permit Renewal:

1. The generator must submit for renewal of the Grease Trap/Interceptor permit 30-days prior to the expiration of the current permit. (See *Appendix 6: Annual Permit Renewal Application for Grease Interceptor/Trap, Oil/Water Separator, or Sand Interceptor*)
2. The renewal shall include a copy of an updated or new waste hauler service contract for the period of renewal.
3. Contracted Hauler shall conduct an annual inspection of the interceptor to include photos. (See *Appendix 7: Annual Inspection Form for Grease Interceptor/Trap, Oil/Water Separator, or Sand Interceptor*)
4. A permit renewal fee shall be paid annually in accordance with the latest rate schedule as approved by IOPWSC.

V. COMPLIANCE AND ENFORCEMENT

5.1 Determination of Compliance with Maintenance Requirements

A Grease Trap/Interceptor shall be considered out of compliance if any of the following conditions exist:

- A. The grease layer on top exceeds 6 inches in depth as measured by an approved dipping method;
- B. The solid layer on the bottom exceeds 8 inches in depth as measured by an approved dipping method;

- C. 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;
- D. The removal efficiency, as determined by sampling and analysis of COD or TSS, is less than eighty percent (8%);
- E. FOG from interceptor contains more than 100 mg/l;
- F. Emulsifiers are used; and
- G. Temperature in excess of 140° F.

The generator shall be responsible for cleaning a grease interceptor that is out of compliance within 10 calendar days after the date the generator received written notice.

IOPWSC reserves the right to assess excess strength changes according to IOPWSC policies, rates, and changes to any generator whose wastewater exceeds any of the discharge limits for normal strength wastewater. The IOPWSC may disconnect water service to the facility for any violation of this policy.

5.2 Enforcement

Grease Trap/Interceptor and oil/water separators shall be inspected by IOPWSC as necessary to assure compliance with the requirements herein. IOPWSC representatives shall have the right to enter the premises of any facility at all reasonable times for the purpose of inspection, observations, record examination, measurement, sampling, and testing in accordance with the provisions included herein.

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

1. Obtain or renew Grease Trap/Interceptor discharge permit.
2. Properly maintain the Grease Trap/Interceptor or oil/water separator including failure to make necessary repairs.
3. Maintain records on-site of pump-outs for Grease Trap/Interceptors.
4. Upon receiving a notice of violation, the generator shall have 10 calendar days to complete corrective action and submit evidence of compliance to the IOPWSC.

Should a generator fail to properly maintain a Grease Trap/Interceptor or oil/water separator according to the provisions set herein the IOPWSC may pursue one or more of the following actions:

1. Issue a notice of violation to the generator.
2. Perform maintenance on the Grease Trap/Interceptor or oil/water separator and charge the generator for all applicable costs.
3. Establishments whose operations cause or allow excessive grease, oils or solids to discharge or accumulate in the wastewater collection system are liable to IOPWSC for all costs associated with correcting related problems.
4. Existing food service establishments without any grease, oils, or solids-handling facilities will be given a compliance deadline not to exceed 30 calendar days from the date of notification to have approved grease, oils and solids-handling equipment installed in compliance with this policy.
5. Terminate water service for failure to comply with this policy.
6. Violations of this policy may result in fines and penalties.



**PERMIT APPLICATION FOR GREASE INTERCEPTORS/TRAP,
OIL/WATER SEPARATOR, OR SAND INTERCEPTOR**

Name of Business: _____

Address: _____ Phone #: _____

Applicant / Business Owner: _____

Address: _____ Phone #: _____

_____ Email: _____

Type of Establishment:	<input type="checkbox"/> Automotive	<input type="checkbox"/> Restaurant/Expansion	<input type="checkbox"/> Other
Reason for Application:	<input type="checkbox"/> New Construction	<input type="checkbox"/> Remodeling/Expansion	<input type="checkbox"/> Change of Ownership/Occupancy
	<input type="checkbox"/> Existing Interceptor/Trap Customer	<input type="checkbox"/> Current Facility Not in Compliance with IOPWSC Guidelines	
Building Sq. Footage: _____	Seating Capacity: _____		
Hours/Day of Operation: _____	Type of Food Served: _____		
Former Use of Building: _____			
Size of Existing Interceptor: _____			

INTERCEPTOR SIZING GUIDELINES & CALCULATIONS

Sizing calculations are only required for new grease trap customers only

Interceptor sizing shall be based on the grease capacity needed to support the desired pump-out frequency using the formula below:

$$\begin{array}{c}
 \boxed{\text{Total \# of Seats}} \quad \times \quad \boxed{\text{Meals/Day Each Seat 2}} \quad \times \quad \boxed{\text{Grease Production Per Meal (lbs) Refer to the Grease Production Table Below}} \quad \times \quad \boxed{\text{90 Day Pump Out Cycle}} \quad = \quad \boxed{\text{Required Grease Capacity (lbs)}}
 \end{array}$$

GREASE PRODUCTION PER MEAL (lbs)			
Grease Production Rate	Typical Examples	No Flatware (lbs/meal)	Flatware (lbs/meal)
Low	Sandwich Shop, Convivence Store, Bar Sushi Bar, Delicatessen, Snack Bar, Frozen Yogurt, Hotel Breakfast Bar, Residential, etc.	0.005	0.0065
Medium	Coffee House, Pizza, Grocery Store (no fryer), Ice Cream Parlor, Japanese, Cafeteria (no food prep), Fast Food, Greek, Indian, etc.	0.025	0.0325
High	Cafeteria, Family Restaurant, Italian, Steak House, Bakery/Donut Shop, Chinese, Buffet, Mexican, Seafood, BBQ, Fried Chicken, Grocery Store	0.035	0.0455

$$\begin{array}{ccccccc}
 \text{Total \# of Seats} & \times & \text{Meals/Day Each Seat} & \times & \text{Grease Production (lbs/meal)} & \times & \text{90 Day Pump Out Cycle} & = & \text{Required Grease Capacity (lbs)} \\
 \boxed{} & \times & 2 & \times & \boxed{} & \times & 90 & = & \boxed{}
 \end{array}$$

Selected Interceptor must have minimum flow rate of 25gpm, unless approved by IOPWSC
The Interceptor manufacturer's specifications must be included with this application

NOTE: Any sink, etc. discharging into the sanitary sewer used for cleaning and/or food preparation **MUST** be connected to a grease interceptor. High temperature dishwashers, garbage disposals and exterior mop sinks **SHALL NOT** be tied into the grease interceptor.

Applicant Comments:

1. _____ I certify that the above information is correct to the best of my knowledge. Also, I understand that a Certificate of Occupancy cannot be approved by IOPWSC until the grease interceptor has been installed in accordance to IOPWSC standards, inspected, and approved by IOPWSC. I understand I will be assessed an inspection fee in accordance with IOPWSC's current rates and fee schedule.
2. _____ I have read, understand, and agree to comply with the IOPWSC Guidelines for the Fats, Oils, Grease, and Solids (FOG) Removal Program.
3. _____ I understand that failure to comply with the IOPWSC Guidelines for the Fats, Oils, Grease, and Solids (FOG) Removal Program can result in discontinuation of water system until such time as the grease interceptor is brought into compliance.

Print Name

Signature

Date

Please submit complete application with plans, specs, plumbing/riser diagram to:

Isle of Palms Water & Sewer Commission

c/o FOG Removal Program

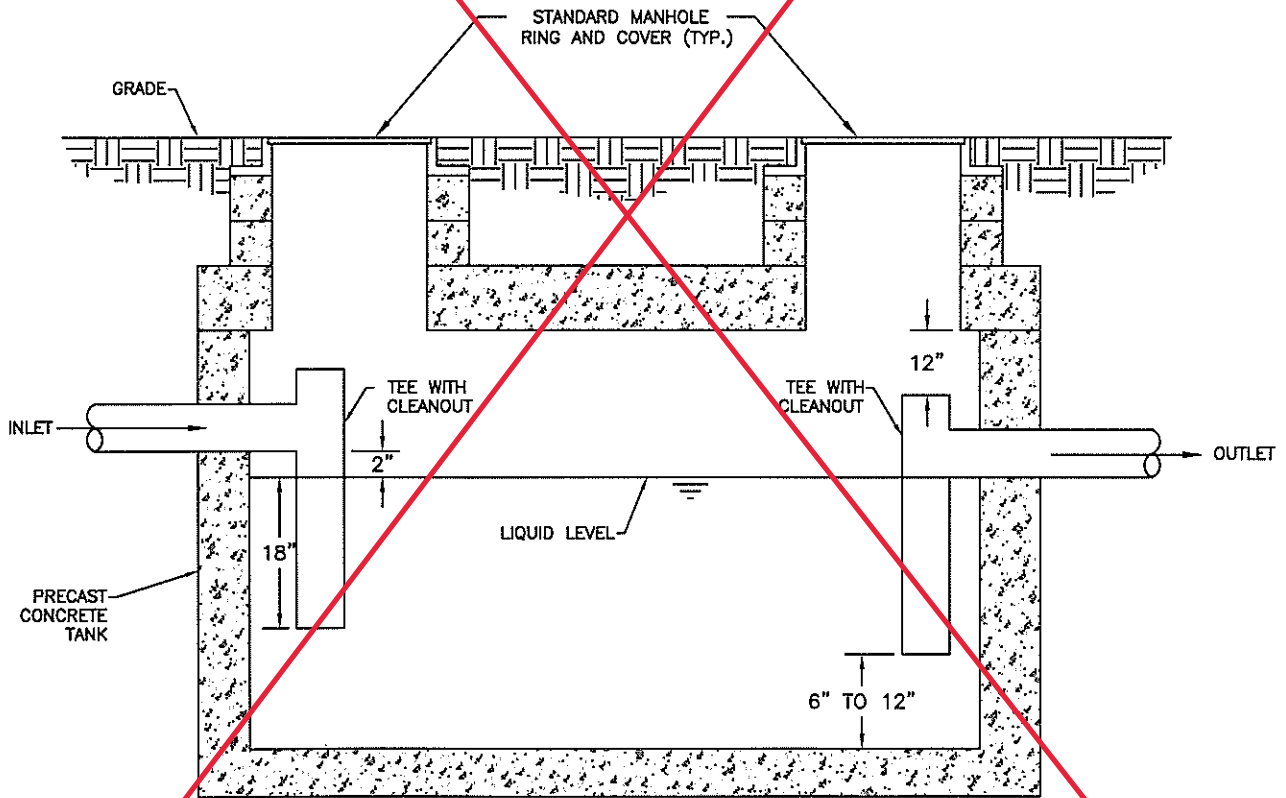
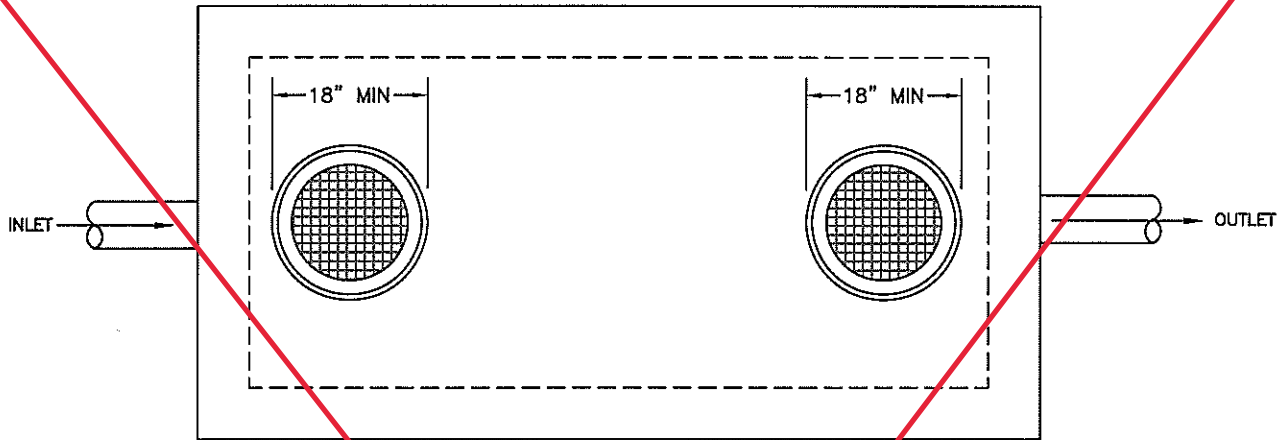
1300 Palm Blvd.

P.O. Box 528

Isle of Palms, SC 29451

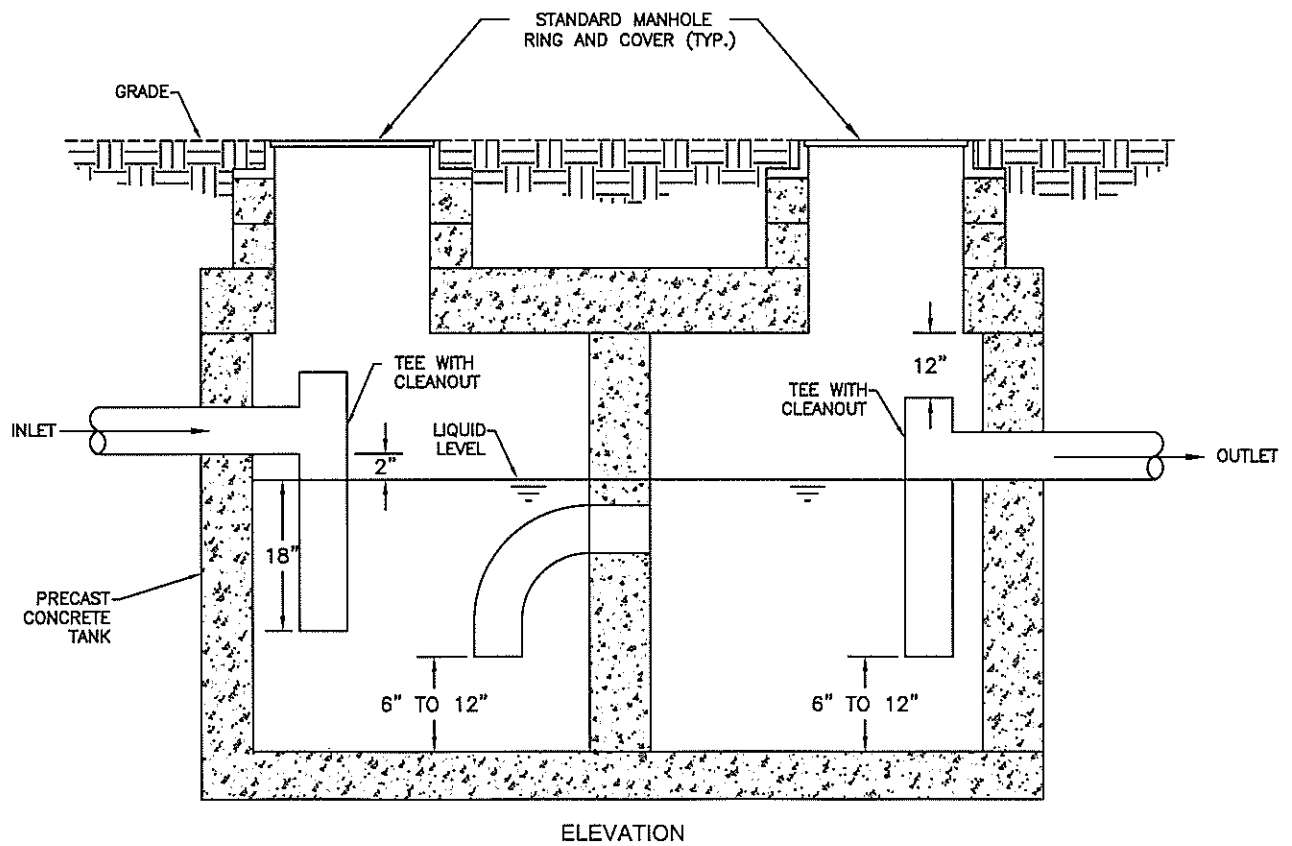
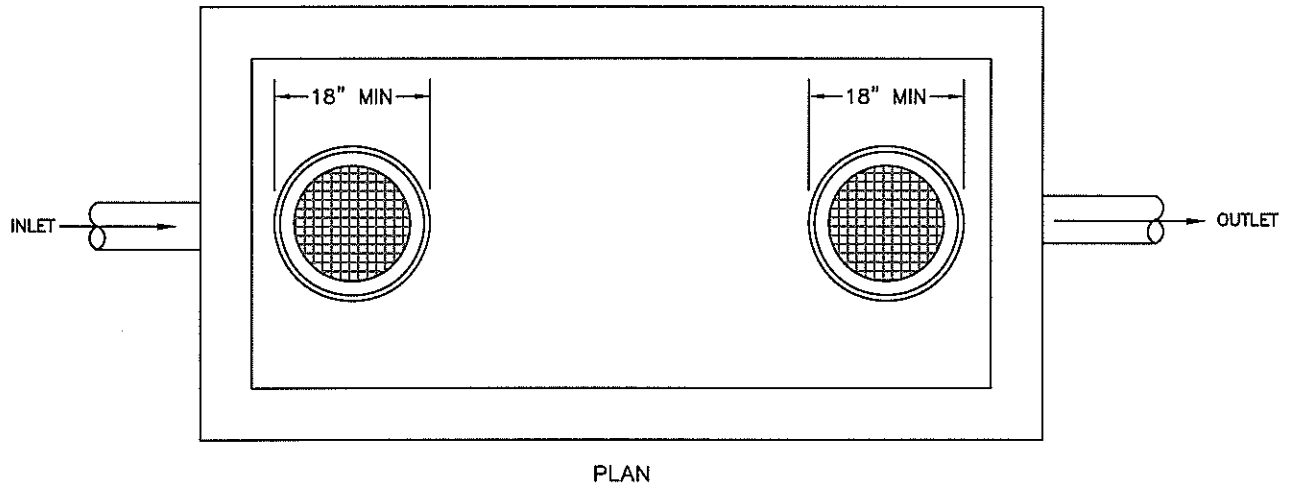
Via email: info@iopwsc.com

DO NOT USE



TYPICAL GREASE INTERCEPTOR & OIL/WATER SEPARATOR: SINGLE CHAMBER

NOT TO SCALE



TYPICAL GREASE INTERCEPTOR & OIL/WATER
SEPARATOR: DOUBLE CHAMBER

NOT TO SCALE



ANNUAL GREASE HAULING AGREEMENT SUMMARY FORM

Pursuant to Section 4 of Isle of Palms Water & Sewer Commission FOG Removal Program, all grease generators having interceptors shall perform all business transactions relating to interceptor pumping, cleaning, servicing, liquid waste collections, transportation and disposal on a contractual basis via a written contract having a duration of at least one year.

CUSTOMER (GENERATOR)

Name of Business: _____

Business Address: _____

Mailing Address: _____

Primary Contact: _____ Phone #: _____

Email: _____

Secondary Contact: _____ Phone #: _____

Email: _____

GREASE HAULER

Name of Business: _____ DHEC #: _____

Business Address: _____

Mailing Address: _____

Primary Contact: _____ Phone #: _____

Email: _____

CONTRACT SUMMARY

Generator Permit #: _____

Date of Agreement: _____

Cleaning Frequency: _____

Duration of Agreement: _____

Note: If necessary, use the following page to include a diagram showing the location of the interceptor(s) that are to be serviced.

Please attach a copy of the signed agreement and send to:

Isle of Palms Water & Sewer Commission

c/o FOG Removal Program

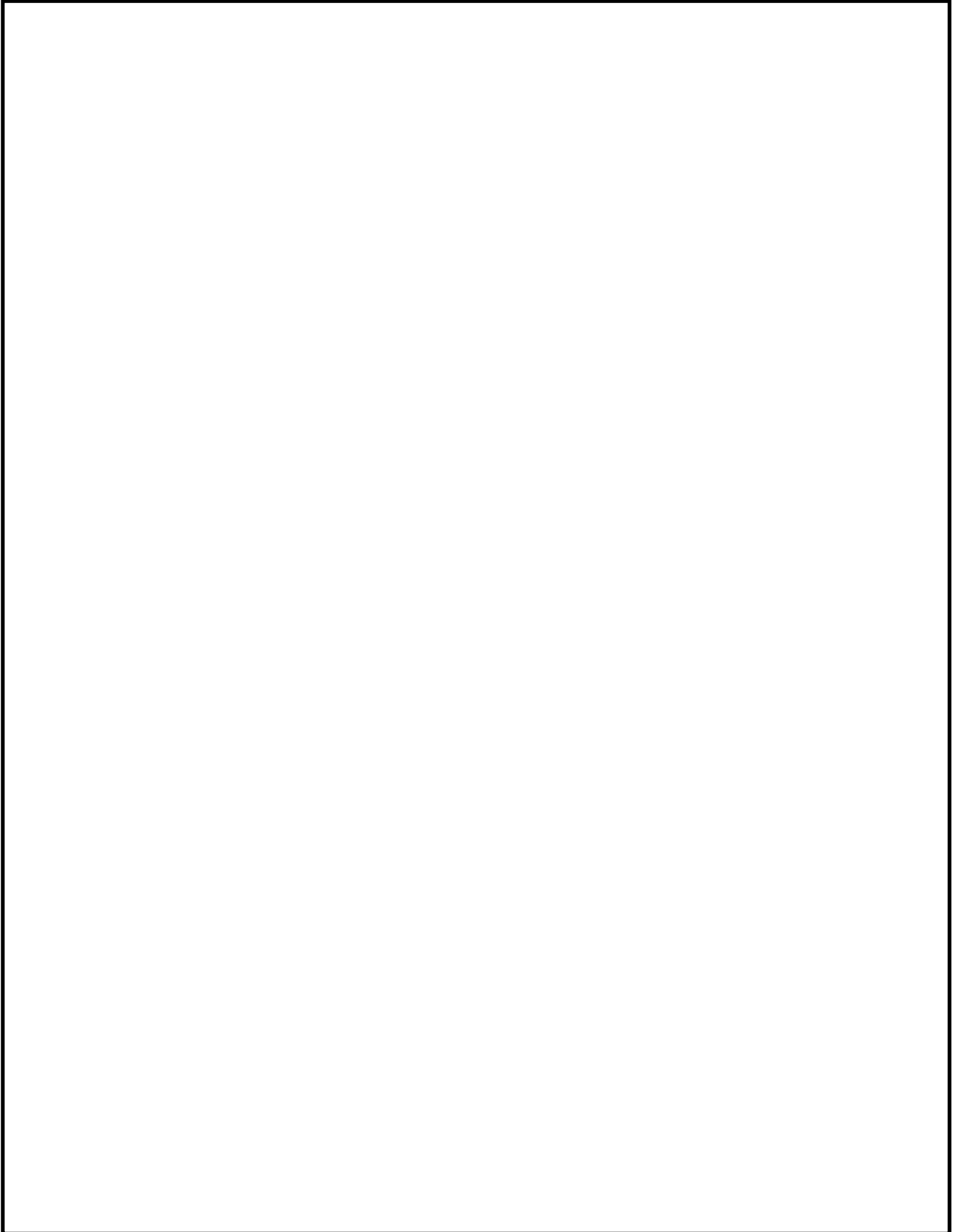
1300 Palm Blvd.

P.O. Box 528

Isle of Palms, SC 29451

Via email: info@iopwsc.com

1. Draw the location of the interreceptor(s) for this establishment.
2. Indicate the type (internal or external) and size (gallons) next to each interceptor.

A large, empty rectangular box with a black border, intended for drawing the location of interceptors and labeling them with their type and size.



ANNUAL GREASE HAULING AGREEMENT SUMMARY FORM

Date: _____

FACILITY INFORMATION

Permit #: _____

Business Name: _____

Business Address: _____

Contact Name: _____ Phone #: _____

Email: _____

FACILITY TYPE (check all that apply)

- Full Service Restaurant [] Caterer [] Commercial Food Preparation []
Fast Food [] Bakery [] Institutional Facility []
Grocery Store [] Deli [] Other: _____ []

INTERCEPTOR CONDITION

- Walls and bottom condition: [] Good [] Needs Repair
Inlet/outlet pipes intact & in place? [] Yes [] Needs Repair
Baffle intact and unobstructed? [] Yes [] Needs Repair [] N/A
Inspection cover in place on exit line? [] Yes [] Needs Replacement

SERVICES PERFORMED

- [] Interceptor pumped and cleaned
Total Amount Pumped: _____ gallons

DISPOSAL LOCATION

Company Name: _____

Company Address: _____ Phone #: _____

VERIFICATION OF SERVICE: This is to certify that the above information is accurate and that the grease interceptor was pumped-out and cleaned by the hauler of record on the date stated herein. I understand that falsification of this information is a violation and is subject to enforcement.
WASTER HAULER INFORMATION:
Company Name: _____ DHEC #: _____
Company Address: _____ Phone #: _____
Driver's Name: _____ Date: _____
Hauler Signature: _____ Customer Name: _____
Customer Signature: _____

The Generator shall maintain a copy of this completed form on-site, in the Grease Interceptor record log. A copy of this report must also be provided to:

Isle of Palms Water & Sewer Commission
c/o FOG Removal Program
1300 Palm Blvd.
P.O. Box 528
Isle of Palms, SC 29451
Via email: info@iopwsc.com



ANNUAL PERMIT RENEWAL APPLICATION FOR GREASE INTERCEPTOR/TRAP, OIL/WATER SEPARATOR, OR SAND INTERCEPTOR

Date: _____

FACILITY INFORMATION

Permit #: _____ Permit Expiration Date: _____

Business Name: _____

Business Address: _____

Contact Name: _____ Phone #: _____

Email: _____

FACILITY TYPE (check all that apply)

- Full Service Restaurant [] Caterer [] Commercial Food Preparation []
Fast Food [] Bakery [] Institutional Facility []
Grocery Store [] Deli [] Other: _____ []

INTERCEPTOR OPERATION

- Current Condition of Interceptor? [] Good [] Needs Repair; see notes below
Any issues/violations in past year? [] No [] Yes; explain in notes below

Date of last cleaning: _____

Notes: _____

PERMIT RENEWAL CHECKLIST

The below items must be submitted along with the renewal application:

- [] Annual Grease Hauling Summary Form & Signed Contract
[] Annual Interceptor Inspection Report
[] Annual Renewal Fee

Please submit this completed application with all required attachments to:

Isle of Palms Water & Sewer Commission

c/o FOG Removal Program

1300 Palm Blvd.

P.O. Box 528

Isle of Palms, SC 29451

Via email: info@iopwsc.com



ANNUAL INSPECTION FORM FOR GREASE INTERCEPTOR/TRAP, OIL/WATER SEPARATOR, OR SAND INTERCEPTOR

Date: _____

FACILITY INFORMATION

Permit #: _____ Permit Expiration Date: _____

Business Name: _____

Business Address: _____

Contact Name: _____ Phone #: _____

Email: _____

INTERCEPTOR INFORMATION

Size: _____

Type: _____

Make/Model: _____

Location: _____

Fixtures Served: _____

INTERCEPTOR RESULTS

- Accessible for maintenance/cleaning? [] YES [] NO
General Cleanliness of area? [] Good [] Needs attention; explain in notes below
Condition of access hatches? [] Good [] Needs repair; explain in notes below
Condition of inlet/outlet tubes? [] Good [] Needs repair
Condition of interior walls, floor, top? [] Good [] Needs repair
Photos attached? [] Yes [] No

Notes: _____

VERIFICATION OF SERVICE: This is to certify that the above information is accurate and that the grease interceptor was pumped-out and inspected by the waste hauler of record on the date stated herein.
Company Name: _____ Phone #: _____
Inspector's Name: _____
Signature: _____ Date: _____

A copy of this report, including photos, must be sent to:
Isle of Palms Water & Sewer Commission
c/o FOG Removal Program
1300 Palm Blvd. or P.O. Box 528
Isle of Palms, SC 29451
Via email: info@iopwsc.com