



MOUNT PLEASANT WATERWORKS

**GUIDELINES FOR
THE FATS, OILS, GREASE AND
SOLIDS (FOG) REMOVAL PROGRAM**

2015 Edition
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PART 1 - INTRODUCTION

All wastewater customers of the Mount Pleasant Waterworks will comply with MPW Resolution 05-2011, as amended from time to time and the Town of Mount Pleasant Ordinances, Chapter 51 of Title V as it pertains to Sewer Use Requirements: Discharges.

Wastewater discharge containing high concentrations of fats, oil, grease and solids (FOG) from food service and automotive facilities are the main cause of blockages and overflows in the 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, Mount Pleasant Waterworks (MPW) has developed a FOG management program which includes the following objectives:

1. Eliminate sewer system overflows;
2. Reduce the amount of oil and grease discharged to the wastewater collection system;
3. Reduce maintenance costs for the wastewater collection system related to FOG;
4. Improve operation of the wastewater collection system; and
5. Recover equitable costs for excessive loading of high strength wastewater (e.g. wastewater high in COD)

REFERENCES:

- Town of Mount Pleasant Ordinances Amending Chapter 51 of Title V
- MPW Resolution 05-2011 – Water and Wastewater Use Resolution for the Mount Pleasant Waterworks Service Area.

PART 2 - GENERAL INFORMATION

2.1 DEFINITIONS

Approved:

Describing a method or design that is acceptable to MPW.

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.

Food Service Establishment:

Any commercial facility discharging kitchen or food preparation wastewater including restaurants, motels, hotels, cafeterias, hospitals, schools, bars, etc. and any other facility which, in MPW's opinion would require a grease interceptor installation by virtue of its operation.

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 and/or transports it to an approved recycling or disposal facility.

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.

Hydromechanical 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 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.

Manifest:

A list or invoice document grease interceptor pump out.

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 drains collect motor oil, transmission fluid, lubricating oil, grease, hydraulic oil, etc.

Sand Interceptor:

A device used to separate sand and other soils from the waste stream before discharging to the wastewater collection system.

Normal Strength Wastewater:

Wastewater with constituents which do not exceed the following limits:

Constituent	Max. 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

2.2 GENERAL REQUIREMENTS

All facilities that prepare, process or serves food as determined by the General Manager or his/her designee are required to have a FOG Interceptor Discharge Permit issued by MPW 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 MPW 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.

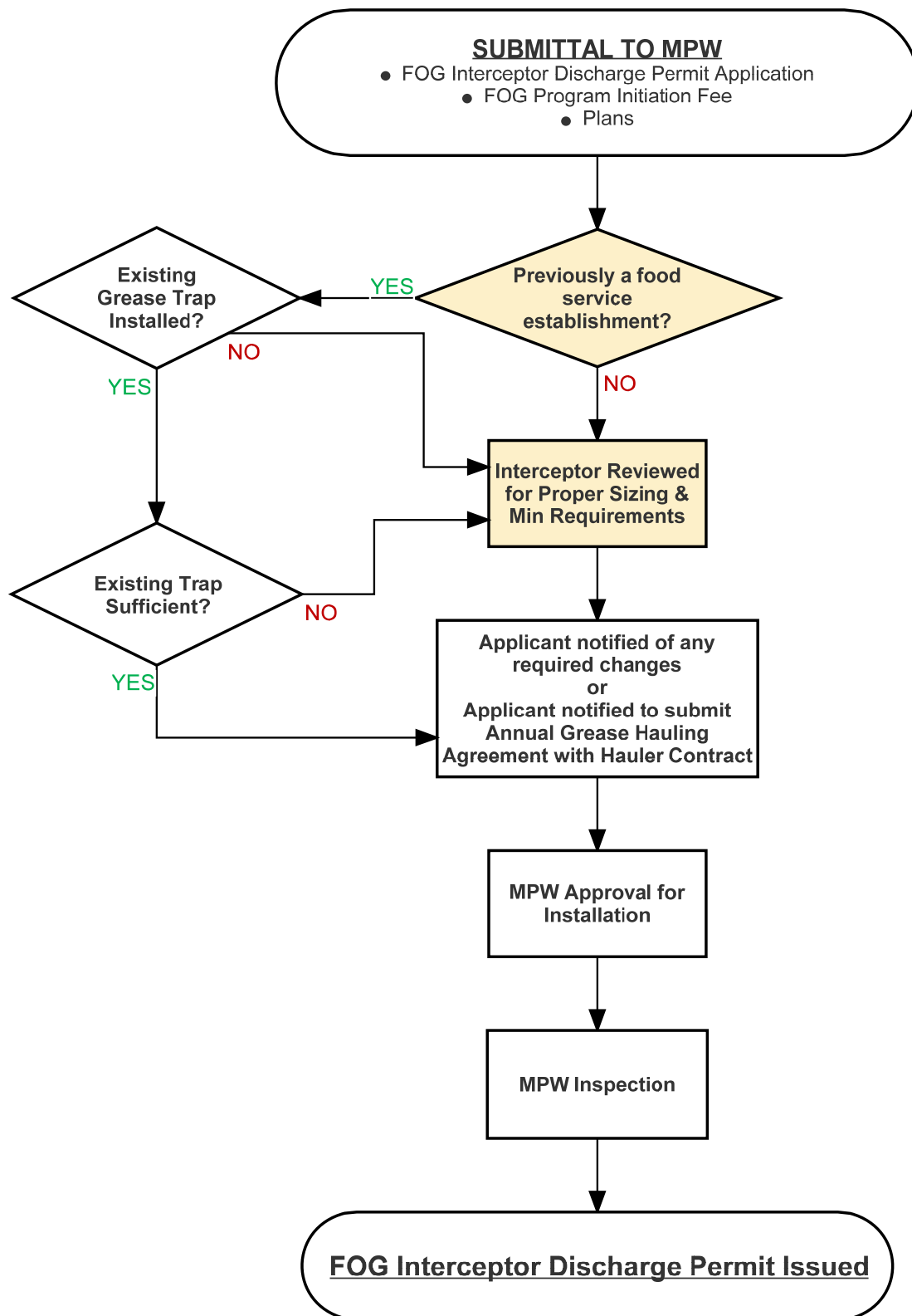
Grease interceptors, oil/water separators, and sand interceptors shall be installed solely at the generator's expense. Proper operation, maintenance, and repair of grease interceptors, oil/water separators, and sand interceptors shall be done solely at the generator's expense.

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

MPW's process for determining type of grease interceptor required is outlined on the flow chart below:



2.5 FOG PROGRAM RATES AND FEES

- **FOG Program Initiation Fee: \$400.00***

- *A one-time fee charged for any new grease interceptor added to MPW's collection system or when there is a change in ownership or significant change in operation.*
- *Recovers MPW costs associated with new account set up and review of grease interceptor for acceptance into the FOG Program*

- **Annual FOG Interceptor Discharge Permit Renewal: \$200.00***

- *Must be included with Annual FOG Interceptor Discharge Permit Renewal Application*
- *Recovers MPW costs associated with review of manifests, update account information, and provide customer service during duration of the permit*

- **MPW Deficiency Inspection: \$75.00***

- *Inspection by MPW due to a deficiency noted in Hauler's manifest.*

- ❖ **If deficiency is not corrected within 30 days of MPW Initial Inspection:**

Customer will be assessed an additional inspection fee of \$75.00*

- ❖ **If deficiency is not corrected within 60 days of MPW Initial Inspection:**

FOG Interceptor Discharge Permit is revoked and customer must re-apply, to include renewal fee.

- ❖ **If deficiency is not corrected within 90 days of MPW Initial Inspection:**

Customer is removed from the FOG Program and must pay FOG Program Initiation Fee to rejoin the program and/or service may be disconnected at MPW's discretion.

Refer to PART 5 – COMPLIANCE AND ENFORCEMENT for additional information regarding violations of the MPW FOG Program maintenance requirements.

**Rates and fees are subject to change. Please refer to the latest MPW Rate Card for applicable fees.*

PART 3 - DESIGN AND INSTALLATION

3.1 GENERAL REQUIREMENTS

All grease interceptors, oil/water separators and sand interceptor plans and specifications must be reviewed and approved by MPW prior to installation. [See Exhibit 1, FOG Interceptor Discharge Permit Application.](#)

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

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

3.2 TYPES OF SYSTEMS

There are three 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.

The most common, passive grease interceptors, are small point of use units used under three compartment sinks within the kitchen. They restrict flow and remove 85-90% of the 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.

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 applications such as a restaurant or hospital store. 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.

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 draw-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 keep the grease in liquid form.

Grease interceptor chemicals, bacteria and enzyme products or combination of passive grease interceptors (grease converters) are generally not accepted in North America. Grease interceptor additives have not been tested or proven by any government certified organization.

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 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 interceptor.

a. Exterior Grease Interceptors

All newly constructed food service establishments shall be required to install an exterior type grease interceptor approved by MPW. New food service facilities will not be allowed to initiate operations until grease handling facilities are installed and approved by MPW.

All grease 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 [Exhibit 2, Typical Grease Interceptor and Oil/Water Separator – Single Chamber.](#)

All grease interceptors serving fixtures where the total wastewater flow exceeds 1500 GPD must either be two-chambered or individual tanks in 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 [Exhibit 3, Typical Grease Interceptor and Oil/Water Separator – Double Chamber.](#)

b. Internal Grease Interceptors

Cases in which exterior type grease interceptors are not feasible to install, Generators will be required to install internal grease 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 interceptor and to allow for proper operation.

c. 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 MPW prior to installation. The facilities will not be allowed to initiate operations until the oil/water separators are inspected and approved by MPW.

Minimum size of the oil/water separators shall be 1000 gallons.

d. 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 MPW prior to installation. These facilities will not be allowed to initiate operations until sand interceptors are inspected and approved by MPW.

3.3 DESIGN

Sizing methods described herein are intended as guidance in determining grease interceptor sizes that will afford MPW 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 interceptor design, MPW does not accept liability for the failure of a system to adequately treat wastewater to achieve effluent quality requirements specified in MPW's Sewer Use Ordinance. 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.

a. Sizing of Grease Interceptors

Grease 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:

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

Grease Production Per Meal (lbs)			
Grease Production Rate	Typical Examples	No Flatware (lbs/meal)	Flatware (lbs/meal)
Low	Sandwich Shop, Convenience 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

For Example: Calculate the required grease capacity for an Italian restaurant which has a seating capacity of 75

$$\begin{array}{|c|} \hline \text{Total \# of Seats} \\ \hline 75 \\ \hline \end{array} \times \begin{array}{|c|} \hline \text{Meals/Day Each Seat} \\ \hline 2 \\ \hline \end{array} \times \begin{array}{|c|} \hline \text{Grease Production Per Meal (lbs)} \\ \hline 0.045 \\ \hline \end{array} \times \begin{array}{|c|} \hline \text{90 Day Pump Out Cycle} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{Required Grease Capacity} \\ \hline 608 \text{ lbs} \\ \hline \end{array}$$

MPW reserves the right to size interceptors in lieu of, or in addition to, the required grease capacity using alternative methods that include, but not limited to the following:

- Maximum flow when the type, size and number of fixtures discharging into the interceptor is known.
- Maximum flow based on pipe diameter and slope
 - 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.

Minimum acceptable grease interceptor sizing shall be accomplished as follows:

1. The recommended minimum size of an exterior grease interceptor is 1,000 gallons. The generator may supply sizing information for a smaller grease interceptor. However, under no circumstances should exterior grease interceptors have a capacity of less than 500 gallons.
2. The minimum flow rate for approved grease interceptors is 25 gpm, unless otherwise approved by MPW. 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 interceptor may be used and must be approved by MPW. In these instances, the interceptor must be readily accessible for cleaning and maintenance.

3.4 INSTALLATION

All permitting, construction, and inspection activities must be completed in accordance with the current MPW Guidelines for Development.

Grease 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 grease interceptor.

All grease bearing waste streams should be routed through an appropriate grease inceptor, including: three-compartment sinks, pot/pan sinks, soup kettles, hand-washing sinks, low temp dishwashers, interior mop sinks and floor drains.

The following fixtures SHALL NOT be connected to a grease interceptor: garbage disposals, high temp dishwashers (water temperatures greater than 140° F) and exterior mop sinks.

Notable Exceptions: Drains that receive "clear waste" only, such as from ice machines, condensate from coils and drink stations, may be plumbed to the wastewater collection system without passing through the grease interceptor with the condition that the receiving drain is a "hub" type that is a minimum of two inches above the finished floor.

Sample Port: A sample port shall be installed on the effluent line of the grease 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.

PART 4 - CUSTOMER (GENERATOR) RESPONSIBILITIES

4.1 RESPONSIBILITIES

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

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 MPW. These systems will not alleviate the necessity for inspections and proper maintenance.

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 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 collection system.

Generators are responsible for maintaining grease interceptors in continuous proper working condition. Further, generators are responsible for inspecting, repairing, replacing, or installing apparatus and equipment as necessary to ensure proper operation and function of grease interceptor and compliance with discharge limitations at all times. All interceptors shall be maintained by the waste generator at the waste generator's expense.

The generator must have a grease interceptor service contract (for pumping cleaning, and inspection) with a MPW approved waste hauler, at a minimum frequency of every *90 days 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 MPW's discharge criteria. Records of maintenance are required to be maintained for five (5) years.

**Note: 90-day maintenance frequency assumes proper sizing and installation consistent with this policy.*

4.2 MAINTENANCE

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

It shall be the responsibility of the generator to inspect the grease 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 interceptor waste generators shall meet all applicable requirements regarding the accumulation, generation and disposal of waste in MPW's service area and in accordance with MPW policy.

a. 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 MPW using [Exhibit 4, Annual Grease Hauling Agreement Summary Form](#). Any modifications or changes to the contract must be submitted to MPW within ten (10) working 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 serviced if different.
2. Contain the name of a primary and secondary contact person for the facility.
3. Contain the Grease Interceptor Permit Number of the facility.
4. Indicate the size of each interceptor.
5. Indicate the precise and unambiguous location of the interceptor or interceptors to be serviced, including a diagram if necessary.
6. Hauler name, address and telephone number, and primary contact
7. Indicate the frequency of pumpage required.
8. Be signed and dated by an authorized representative indicating acceptance of the terms of the contract.
9. Contain a statement of the duration of the contract, to be not less than one year, or for the duration of the operation of the facility, whichever is less.

Required Pumping Frequency

Unless otherwise specified by MPW, 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 MPW that the pumping frequency can be performed less frequently. MPW 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 MPW along with testing (as required by MPW).

Grease 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.

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

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 or 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.

Requirement for Increased Pumpage or Servicing

If MPW finds that a change in pumpage or servicing of an interceptor is necessary for an establishment to meet the discharge limits stated in this guideline or the Sewer Use Ordinance, MPW may order a change in pumpage or servicing of an interceptor.

If MPW orders a change in the pumpage or servicing, then MPW shall serve notice of such order upon the generator.

Within 10 days of receipt of such order, the generator may demand a hearing to review such order, in which case MPW shall schedule a hearing to review such order within 30 days of receiving the demand for review from the generator. If a hearing to review the order is scheduled, MPW shall serve notice of the hearing to review such order at least 10 days before the date of such hearing. At the hearing to review the order, the generator may present evidence, and MPW may make new findings and issue new orders concerning the subject of the original hearing.

After receiving notice of an order by MPW to change the frequency and/or methods of pumpage or servicing, it shall be unlawful for a generator to allow or cause any discharge into the wastewater collection system not in compliance with such order.

Cleaning Procedures

The generator shall supervise the interceptor cleaning, and shall be physically present and observe the entire cleaning operation.

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.

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.

Each interceptor pumped shall be fully evacuated unless the interceptor volume is greater than the tank capacity on the vacuum truck in which case the transporter shall arrange for additional transportation capacity so that the interceptor is fully evacuated within a 24-hour period.

Disposal of Interceptor Pumpage

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 pumpage be returned to any private or public portion of MPW's collection system without MPW's prior written approval.

Interceptor Maintenance Reporting

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.

Grease haulers shall provide Manifest Report, see [Exhibit 5, Grease Hauler Manifest and Inspection Report](#), on behalf of the generator to MPW within 14 days of interceptor cleaning.

Permit Renewal

The generator must submit for renewal of the Grease Interceptor permit 30-days prior to the expiration of the current permit. See [Exhibit 6, Annual Permit Renewal for Grease Interceptor](#).

The renewal shall include a copy of an updated or new waste hauler service contract for the period of renewal.

Contracted Hauler shall conduct annual inspection of the interceptor to include photos. See [Exhibit 7, FOG Interceptor Annual Inspection Form](#).

A permit renewal fee shall be paid annually in accordance with latest MPW rates and fees.

PART 5 - COMPLIANCE AND ENFORCEMENT

5.1 DETERMINATION OF COMPLIANCE WITH MAINTENANCE REQUIREMENTS

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

1. The grease layer on top exceeds 6 inches in depth as measured by an approved dipping method; See *Exhibits 8 & 9*.
2. The solids layer on the bottom exceeds 8 inches in depth as measured by an approved dipping method; See *Exhibits 8 & 9*.
3. 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; See *Exhibits 8 & 9*.
4. The removal efficiency, as determined by sampling and analysis of COD or TSS, is less than eight percent (80%);
5. FOG from interceptor contains more than 100 mg/l;
6. Emulsifiers are used; and
7. Temperature in excess of 104 degrees Fahrenheit.

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

MPW reserves the right to assess excess strength charges according to MPW policies and Sewer Use Ordinances, Rates and Charges to any generator whose wastewater exceeds any of the discharge limits for normal strength wastewater.

5.2 ENFORCEMENT

Grease interceptors and oil/water separators shall be inspected by MPW as necessary to assure compliance with the requirements herein. MPW representatives shall have the right to enter the premises of any facility at all reasonable times for the purpose of inspection, observations, records 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 interceptor discharge permit.
2. Properly maintain the grease interceptor or oil/water separator including failure to make necessary repairs.
3. Maintain records on-site of pump-outs for grease interceptors.
4. Upon receiving a notice of violation, the generator shall have 10 days to complete corrective action and submit evidence of compliance to MPW.

Should a generator fail to properly maintain a grease interceptor or oil/water separator according to the provisions set herein, MPW may pursue one or more of the following actions:

1. Issue a notice of violation to the generator.
2. Perform maintenance on the grease interceptor or oil/water separator and charge the generator for the costs according to MPW's current fees and rates.

3. Assess the generator excess strength charges including sampling, laboratory analysis, and administrative costs according to MPW current fees and rates.
4. Any facility receiving 2 consecutive unsatisfactory evaluations shall be subject to penalties and restrictions.
5. Establishments whose operations cause or allow excessive grease, oils or solids to discharge or accumulate in the wastewater collection system are liable to MPW for all costs associated with correcting related problems.
6. Existing food service establishments without any grease, oils or solids-handling facilities will be given a compliance deadline not to exceed 60 days from date of notification to have approved grease, oils and solids-handling equipment installed in compliance with this policy.
7. Terminate water service for failure to comply with this policy.
8. Violations of this policy may result in fines and penalties.



FOG INTERCEPTOR DISCHARGE PERMIT APPLICATION

Name of Business: _____ Applicant: _____
Business Address: _____ Mailing Address: _____
City: Mount Pleasant City: _____
State: SC State: _____ Zip: _____
Phone #: _____ Phone #: _____
Email: _____

Reason for Application: _____ Type of Establishment: _____
Building Sq. Footage: _____ Seating Capacity: _____ Hours of Operation: _____
Type of Food Served: _____

Size of Existing Grease Trap/Interceptor in gallons (if applicable): _____

SIZING CALCULATIONS

Interceptors shall be sized by the required grease capacity to support a minimum pump-out frequency of 90 days. The required grease capacity shall be calculated using the formula below:

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

Grease Production Per Meal (lbs)			
Grease Production Rate	Typical Examples	No Flatware (lbs/meal)	Flatware (lbs/meal)
Low	Sandwich Shop, Convenience 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

Select the appropriate grease production rate from the above table based on the type of food that will be served:

MINIMUM SIZE REQUIRED, IN GALLONS

MPW reserves the right to size interceptors in lieu of, or in addition to, the required grease capacity using alternative methods that include, but not limited to the following:

- Maximum flow when the type, size and number of fixtures discharging into the interceptor is known.
- Maximum flow based on pipe diameter and slope; 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.

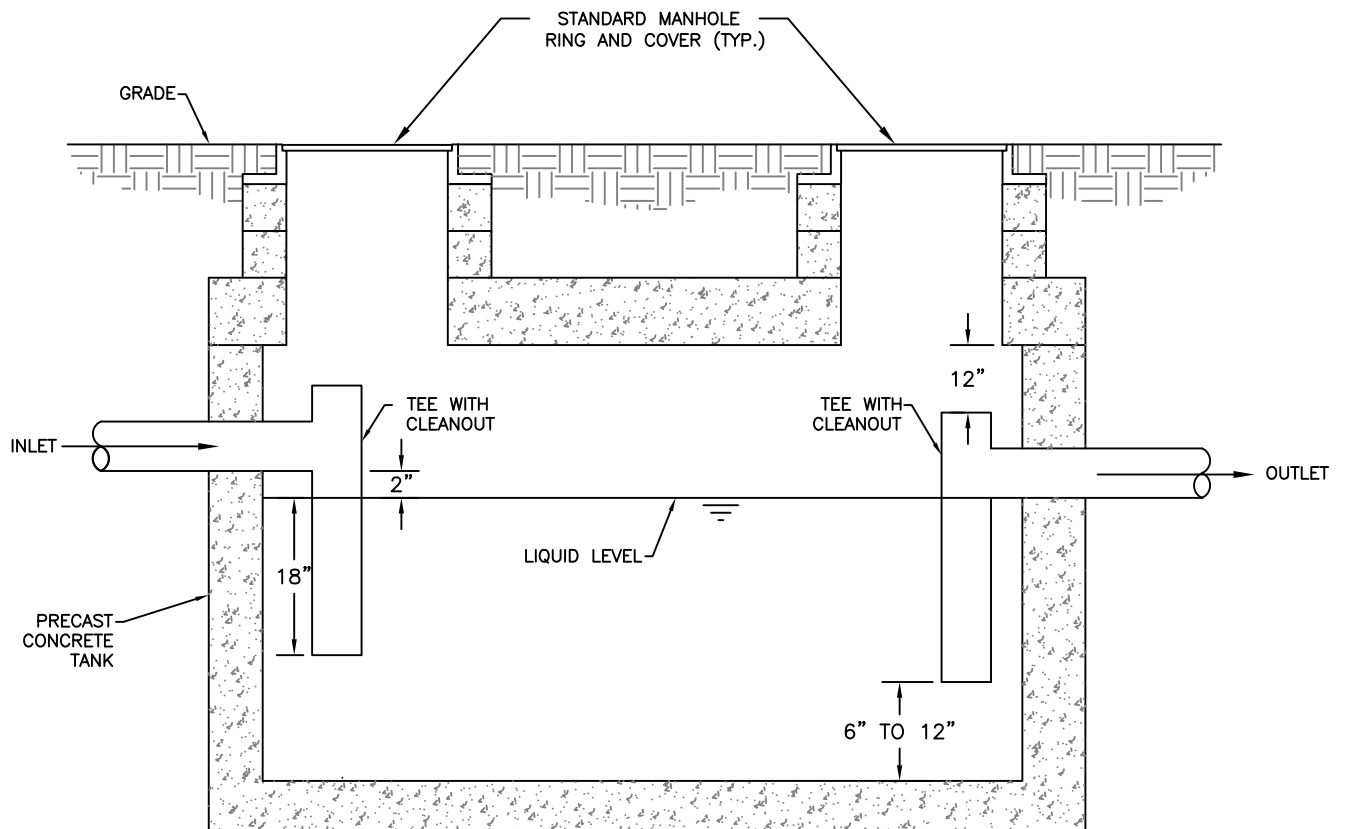
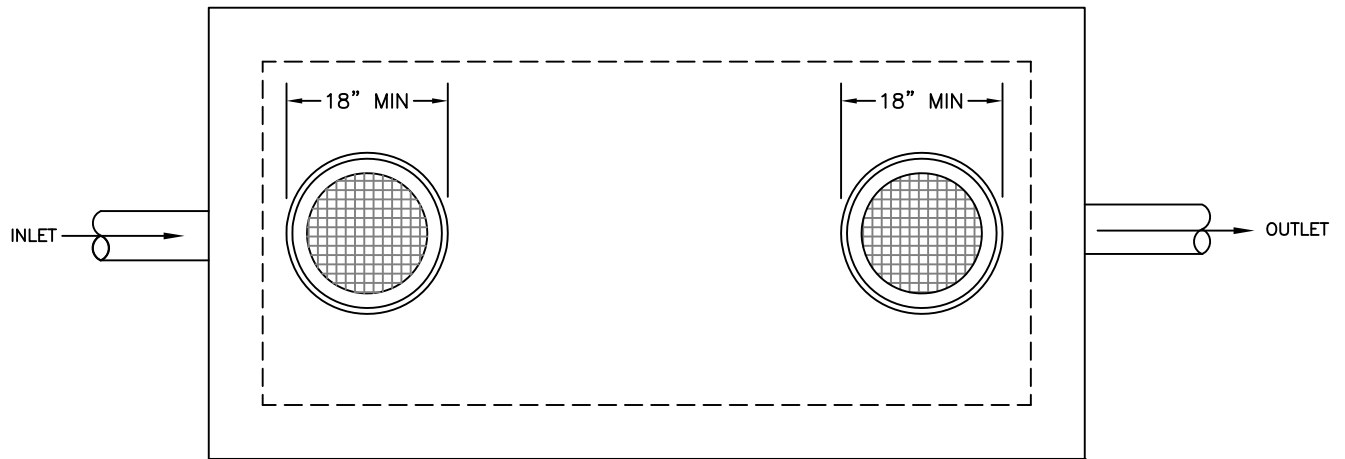


EXHIBIT 2

MOUNT PLEASANT WATERWORKS GREASE INTERCEPTOR AND OIL/WATER SEPERATOR SINGLE CHAMBER



SCALE:
Not to Scale
DATE:
AUG 2014

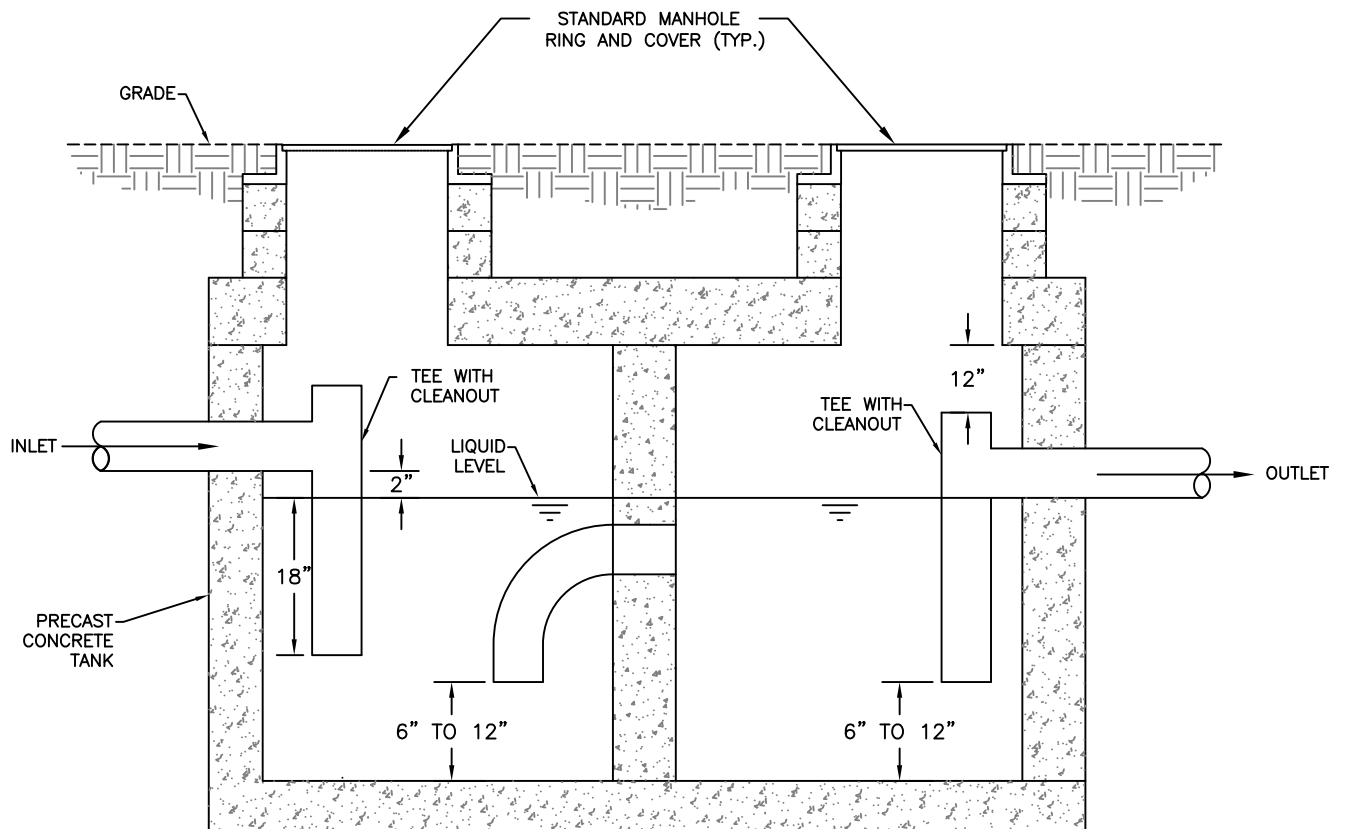
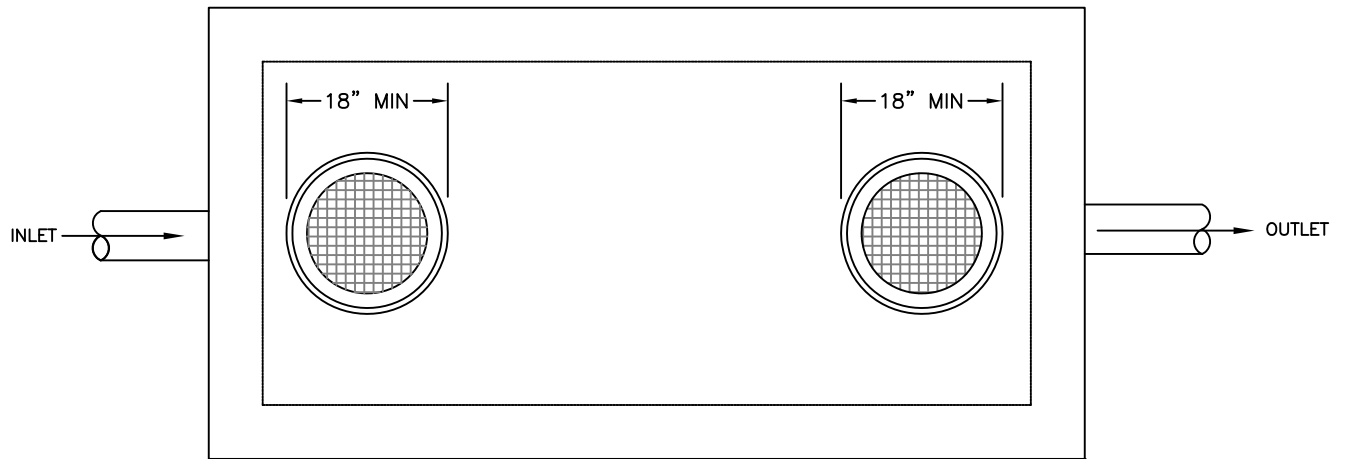


EXHIBIT 3

MOUNT PLEASANT WATERWORKS
GREASE INTERCEPTOR AND OIL/WATER SEPERATOR
DOUBLE CHAMBER



SCALE:
Not to Scale
DATE:
AUG 2014



ANNUAL GREASE HAULING AGREEMENT SUMMARY FORM

Pursuant to Section 4 of Mount Pleasant Waterworks 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 No.: _____
Email: _____
Secondary Contact: _____ Phone No.: _____
Email: _____

GREASE HAULER

Name of Business: _____ DHEC #: _____
Business Address: _____
Mailing Address: _____
Primary Contact: _____ Phone No.: _____
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:

Mount Pleasant Waterworks
c/o FOG Removal Program
1619 Rifle Range Road
Mount Pleasant, SC 29464

Via email: fog@mpwonline.com

-
1. Draw the location of the interceptor(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 thick black border, intended for a hand-drawn diagram of the interceptor location. The box occupies the majority of the page below the instructions.

**MANIFEST & INSPECTION REPORT
GREASE INTERCEPTORS**

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 and 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.

WASTE 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.

The information included in this report must also be uploaded by the Hauler at www.mpwfог.com

**FOG INTERCEPTOR DISCHARGE PERMIT
ANNUAL RENEWAL APPLICATION**

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:

**Mount Pleasant Waterworks
c/o FOG Removal Program
1619 Rifle Range Road, Mt. Pleasant, SC 29464
Via Email: fog@mpwonline.com**

**FOG INTERCEPTOR
ANNUAL INSPECTION FORM**

Date: _____

FACILITY INFORMATION

Permit #: _____ Permit Expiration Date: _____

Business Name: _____

Business Address: _____

Contact Name: _____ Phone #: _____

Email: _____

INTERCEPTOR INFORMATION

Size: _____

Type: _____

Make/Model: _____

Location: _____

Fixtures Served: _____

INSPECTION 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.

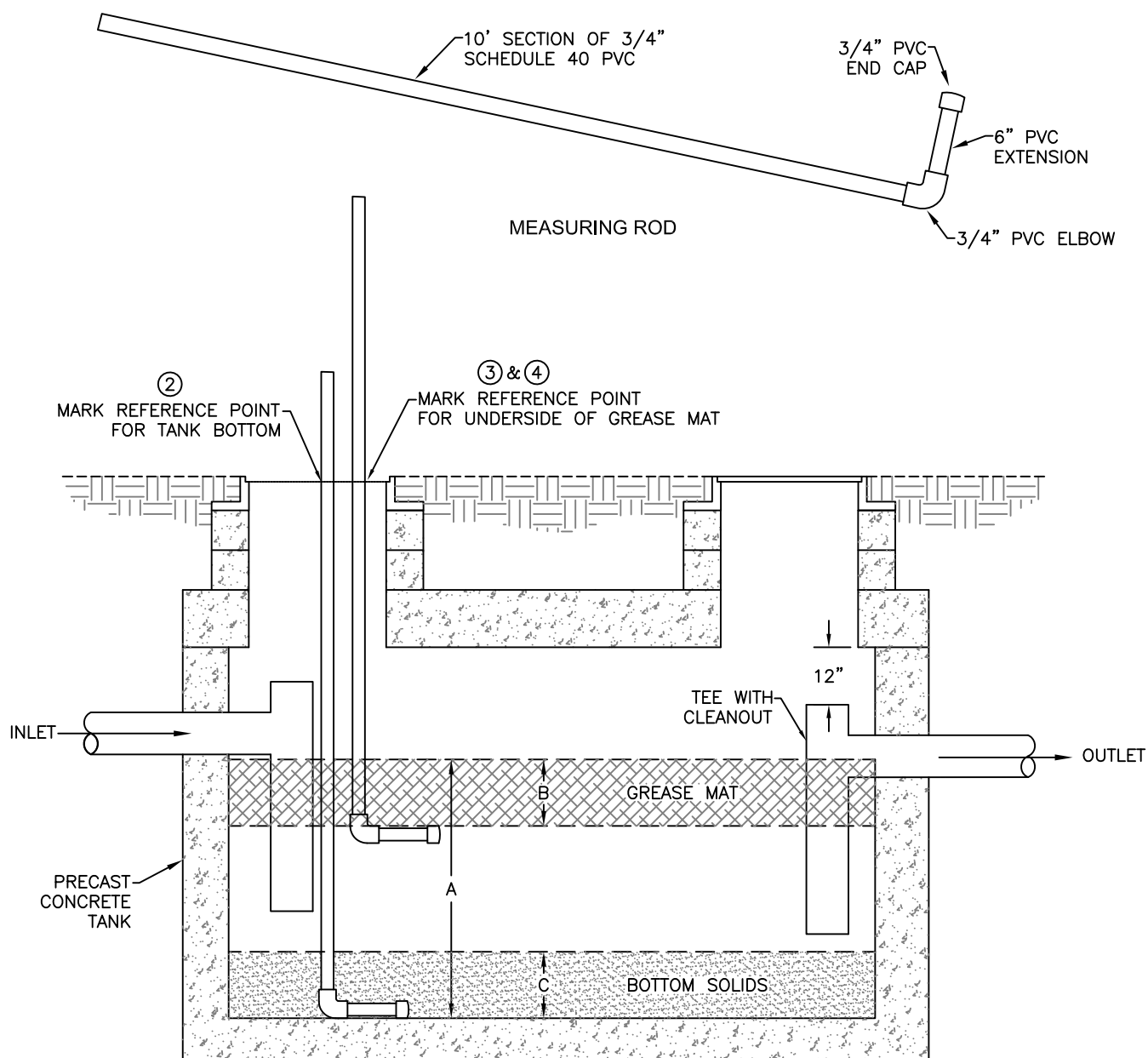
Company Name: _____ Phone #: _____

Inspector's Name: _____

Signature

*The information included in this report, including photos, must be uploaded by the Hauler at
www.mpwfog.com*

EXHIBIT 8



1. REMOVE ACCESS OPENING AND PUSH MEASURING ROD THROUGH GREASE MAT UNTIL CONTACT IS MADE WITH TANK BOTTOM.
2. MARK A REFERENCE POINT ON MEASURING ROD TO INDICATE LEVEL OF TANK BOTTOM.
3. ROTATE MEASURING ROD 1/4 TURN AND SLOWLY RAISE UNTIL CONTACT IS MADE WITH UNDERSIDE OF GREASE MAT.
4. MARK A REFERENCE POINT ON MEASURING ROD TO INDICATE LEVEL OF GREASE MAT UNDERSIDE.
5. MEASURE THE DISTANCE BETWEEN THE TWO REFERENCE POINTS. THIS INDICATES THE DISTANCE OF THE GREASE MAT ABOVE THE TANK BOTTOM.
6. IF IT IS DETERMINED THAT THE GREASE MAT HAS ACCUMULATED TO WITHIN 3 FT. OF THE TANK BOTTOM, THEN THE OWNER/MANAGER SHALL BE REQUIRED TO THOROUGHLY REMOVE THE GREASE FROM THE TANK(S).
7. IF IT IS IMPOSSIBLE TO PENETRATE THE GREASE MAT AS SPECIFIED IN ITEM 1, THEN THE OWNER/MANAGER SHALL BE REQUIRED TO THOROUGHLY REMOVE THE GREASE FROM THE TANK(S).



MOUNT PLEASANT WATERWORKS
METHOD FOR MEASURING
GREASE ACCUMULATION

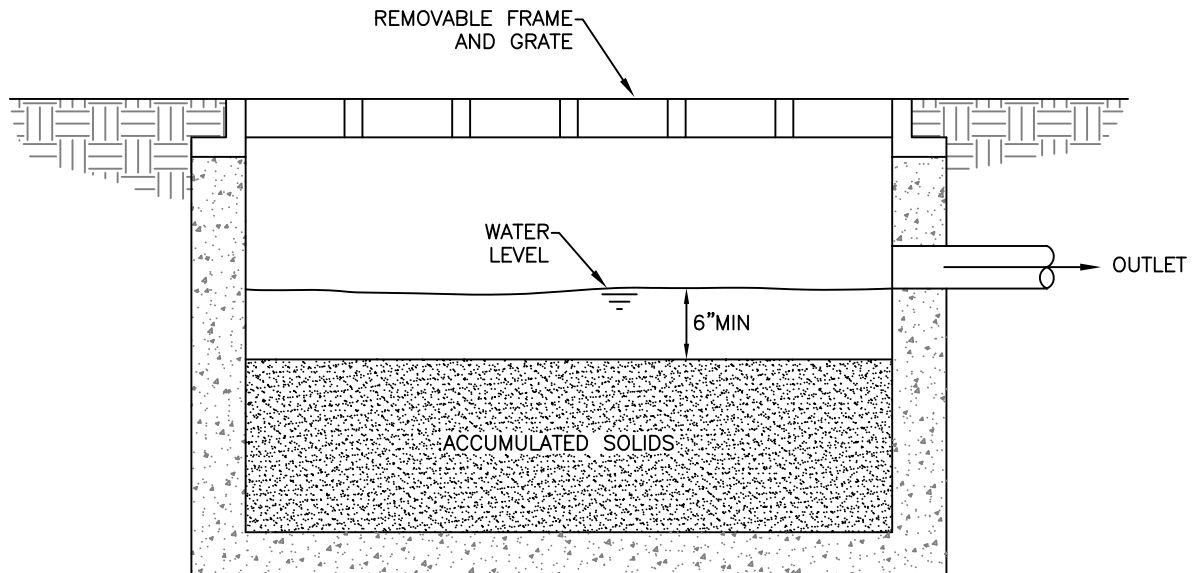
SCALE:

Not to Scale

DATE:

AUG 2014

EXHIBIT 9



1. REMOVE GRATE IF NEEDED AND MEASURE FROM TOP OF ACCUMULATED SOLIDS TO BOTTOM OF OUTLET PIPE.
2. IF SOLIDS HAVE ACCUMULATED TO WITHIN 6 INCHES OF OUTLET PIPE, INTERCEPTOR MUST BE CLEANED.



MOUNT PLEASANT WATERWORKS
METHOD FOR MEASURING
SAND INTERCEPTOR ACCUMULATION

SCALE:

Not to Scale

DATE:

AUG 2014