



Fats, Oils and Grease (FOG) Discharge Policy

May 2017



SCARBOROUGH SANITARY DISTRICT

415 Black Point Road, Scarborough, Maine 04074

TEL. (207)883-4663 – FAX (207)883-7083

<http://scarboroughsanitarydistrict.com/>

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1. Preface:

Fats, oils and grease, known collectively as FOG, come from:

- Cooking oil
- Food scraps with grease, butter or oil
- Lard or tallow
- Meat fat, grease and juices
- Gravy
- Sauces with butter or oil
- Shortening
- Dairy products

When in the process of preparing, cooking, and cleaning, FOG gets discharged down the drain it congeals and collects in sanitary sewer system piping, where over time it builds up leading to a blockage. These blockages cause an overflow of the sanitary sewer system where wastewater containing raw sewage flows out of manhole covers onto the ground, where it can flow into fresh water sources, businesses and residences. These overflows represent a clear and present danger to public health and safety and as such must be prevented in compliance with the Clean Water Act.

The US Environmental Protection Agency, responsible for administration of the Clean Water Act, has identified FOG as the leading cause of these dangerous sewer system overflows and has mandated sewer agencies implement FOG control programs to prevent, reduce and/or eliminate these overflows within their local jurisdictions. This policy ensures that the Scarborough Sanitary District (District) is in compliance with these mandates.

2. Purpose:

This policy sets forth requirements for users of the District's sanitary sewer system, to capture and dispose of fats, oils and grease (FOG) and enables the District to comply with the District's Sewer Use Regulations, all applicable state and federal laws, including the Clean Water Act, 33 U.S.C., § 1251, *et seq.*, and the General Pretreatment Regulations, Title 40 C.F.R. Part 403.

The objectives of this policy are:

- a. To prevent the introduction of FOG into the sanitary sewer system that will interfere with its operation;
- b. To prevent the introduction of FOG into the District sanitary sewer system that could pass through the sanitary sewer system, inadequately treated, into receiving waters, or otherwise be incompatible with the District sanitary sewer system;
- c. To prevent sanitary sewer overflows (SSO), where sewer wastewater flows out of manhole covers and along the ground. These overflows can then contaminate the ground, local water bodies and any property that the sewerage comes into contact with; and
- d. To enable the District to comply with Federal, State and local Pollutant Discharge limits.



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3. Definitions:

“Brown Grease” shall mean fats, oils, and greases (FOG) and food solids that are retained in and removed from grease interceptors most commonly serving food service establishments, institutions with commercial kitchens, and industrial food manufacturers/processors.

“District” shall mean the Scarborough Sanitary District.

“Establishment” shall mean any facility generating fats, oils, or greases as a result of food manufacturing, processing, preparation, or food service.

“Fats, Oils and Grease (FOG)” shall mean organic polar compounds derived from animal and/or plant sources that contain multiple carbon chain triglyceride molecules. These substances are detectable and measurable using analytical test procedures established in the United States Code of Federal Regulations 40 CFR 136, as may be amended from time to time.

“Food Waste Disposer” (garbage grinder) shall mean a machine, built into the waste tube of a domestic sink, that shreds unwanted food and flushes it away.

“Gravity Grease Interceptor (GGI)” shall mean a plumbing appurtenance or appliance that is installed in a sanitary drainage system to intercept nonpetroleum fats, oils, and greases from a wastewater discharge and is identified by volume of not less than 750 gallons, 60-minute retention time, baffle(s), not less than two compartments, and gravity separation.

“Grease Removal Device (GRD)” shall mean a hydromechanical grease interceptor that automatically, mechanically removes non-petroleum fats, oils and grease from the interceptor, the control of which are either automatic or manually initiated.

“Hydromechanical Grease Interceptor (HGI)” shall mean a plumbing appurtenance or appliance that is installed in a sanitary drainage system to passively intercept nonpetroleum fats, oil, and grease from a wastewater discharge and is identified by flow rate, and separation and retention efficiency. The design incorporates air entrainment, hydromechanical separation, interior baffling, or barriers in combination or separately, and one of the following Types:

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

“Interference” shall mean a discharge which alone or in conjunction with a discharge or discharges from other sources inhibits or disrupts the Districts sanitary sewer system, its treatment processes or operations or its sludge processes, use or disposal, or is a cause of a violation of the city's NPDES permit

“Sanitary Sewer System” shall mean a District sewer which carries sewage and to which storm, surface, and ground waters are not intentionally admitted.

“Superintendent” shall mean the Superintendent of the Scarborough Sanitary District.



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“Trash Receptacle” shall mean a container used for storing garbage, trash, or food debris.

“User” shall mean any person, including those located outside the jurisdictional limits of the city, who contributes, causes or permits the contribution or discharge of wastewater into the sanitary sewer system, including persons who contribute such wastewater from mobile sources.

4. Administration:

Except as otherwise provided herein, the Superintendent shall administer, implement, and enforce the provisions of this policy. Any powers granted to or duties imposed upon the Superintendent may be delegated by the Superintendent to a duly authorized District employee.

5. Applicability:

- (a) This policy shall apply to all non-domestic users of the District sanitary sewer system.
- (b) Grease interceptors shall not be required for single-family residences unless such residences have been converted for commercial food preparation use.
- (c) Grease interceptors shall not be required for duplexes, triplexes, quadplexes, or apartment complexes. However, multifamily dwellings which are found to be contributing FOG in sufficient quantities to cause main line blockages or increased maintenance in the sanitary sewer system shall be required to obtain a FOG discharge permit.
- (d) This policy shall apply to both new and existing establishments generating fats, oils, or greases as a result of food manufacturing, processing, preparation, or food service. All such non-domestic users shall size and select, install, use, and maintain appropriate grease interceptors as required in this policy. These establishments include but are not limited to restaurants, food manufacturers, food processors, hospitals, hotels and motels, prisons, nursing homes, and any other facility preparing, serving, or otherwise making any foodstuff available for consumption.
- (e) The District reserves the right to waive portions of this policy at its discretion. Any portion of the policy not specifically waived by the District shall remain in effect.

6. FOG Discharge Permit:

- (a) All establishments governed by this policy shall submit a FOG Discharge Permit Application (Appendix A) to the District for approval.
- (b) All users planning the expansion or remodel of an existing establishment or are planning process modifications, shall submit an updated FOG Discharge Permit Application (Appendix A) 60 days prior to completing the modifications to the District for approval.
- (c) The District shall issue FOG Discharge Permits to approved applicants. Approved FOG Discharge Permits are required for users to discharge wastewater into the District sanitary sewer system.
- (d) All FOG Discharge Permits issued by the District shall be renewed annually.



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- (e) All costs associated with the application for and ongoing compliance with the FOG Discharge Permit and those costs incidental to but not limited to the installation, testing, inspection and maintenance of grease interceptors in compliance with this policy shall be borne by the establishment.

7. Grease Interceptor Requirements:

- (a) Those establishments identified in this policy as being required to install a grease interceptor, must install an approved type and adequately sized device in accordance with this policy.
- (b) The following grease interceptor types meeting the requirements set forth as follows shall be approved for installation in the District:
 - a. Gravity Grease Interceptor (GGI), meeting the following requirements:
 - i. Must have a minimum liquid capacity of 750 gallons;
 - ii. Must be designed, constructed and installed in compliance with IAPMO/ANSI Z1001;
 - iii. Must be sized to have a minimum 60-minute retention time based on the calculated peak flow from connected fixtures in accordance with Section 7, subsection (c) and/or Appendix B;
 - iv. Must be made of non-corrosive materials including but not limited to:
 - 1. Fiberglass-reinforced polyester in compliance with the requirements of IAPMO/ANSI Z1000 section 4.2;
 - 2. Polyethylene in compliance with the requirements of IAPMO/ANSI Z1000 section 4.3; or
 - 3. Any other non-corrosive material of construction as may be approved by the District.
 - v. Must have a minimum of two manholes with covers at grade;
 - vi. The inlet fitting(s), outlet fitting(s), baffle wall, and fitting(s) installed on baffle wall must be visible for inspection and maintenance through manhole covers;
 - vii. Maximum height of grade rings (riser rings) is 12 inches to finish grade;
 - viii. Must be installed exterior to the building as near as possible to the fixtures being served and the location of installation must be such that the interceptor is unobstructed and can be inspected by the District at any time; and



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- ix. Multiple units may be installed in series to satisfy the requirements of Section 7, subsection (c) and/or Appendix B. Parallel installations are not permitted unless approved by the District.
- b. Automatic grease removal devices (GRD) must be approved for installation by the District. When approved for installation by the District, GRDs will meet the following requirements:
 - i. Must be tested and rated in accordance with ASME A112.14.4 and/or CSA B481.5; and
 - ii. Must have a sampling valve installed on the discharge piping with a minimum clearance of eight inches for the installation of sampling bottles.
- c. Hydromechanical grease interceptor (HGI), meeting the following requirements:
 - i. Must be tested and rated in accordance with ASME A112.14.3, PDI G101 and or CSA B481.1;
 - ii. All internal components must be accessible for inspection and maintenance;
 - iii. Must be made from non-corrosive materials including but not limited to:
 - 1. Fiberglass-reinforced polyester;
 - 2. Thermoplastics;
 - 3. Stainless steel; or
 - 4. Any other non-corrosive material of construction as may be approved by the District.
 - iv. Must be installed exterior to the building as near as possible to the fixtures being served and the location of installation must be such that the interceptor is unobstructed and can be inspected by the District at any time;
 - v. When installed in vehicle traffic areas, the interceptor must have traffic rated covers meeting the requirements of H-20 loading;
 - vi. May be installed indoors when approved by the District where the establishment can demonstrate that physical constraints prevent installation outdoors. Adequate clearance above and around the HGI to allow access for inspection and maintenance must be provided;
 - vii. Flow control devices, whether external vented or integral (built-in) must be installed in accordance with manufacturer's certification and installation instructions; and



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- viii. Multiple units may be installed in series to satisfy the requirements of Section 5, subsection (c) and/or Appendix B. Parallel installations are not permitted unless approved by the District.
 - d. Alternative methods of grease management or grease interceptor technology may be approved by the District when the District determines that the alternative method of grease management or grease interceptor technology is at least as effective at restricting FOG discharges as those approved under this policy.
- (c) All fixtures in a commercial kitchen shall be routed to a properly sized and selected grease interceptor, including but not limited to the following:
- a. Automatic hood wash units;
 - b. Bar sinks;
 - c. Clothes washing machine in kitchen area for towels or rags;
 - d. Dishwashers;
 - e. Floor drains and floor sinks;
 - f. Hand sinks in the kitchen or bar service area;
 - g. Mop sinks;
 - h. Pot sinks;
 - i. Pre-rinse sinks;
 - j. Soup kettles or similar devices;
 - k. Wok stations; and
 - l. Any other fixtures or drains into which grease is likely to be discharged.
- (d) Dishwashers may not discharge effluent hotter than 140 °F to the inlet of a grease interceptor.
- (e) Food waste disposers (garbage grinders) may be installed, but must be connected to a grease interceptor. A solids interceptor shall be installed between the garbage grinder and the grease interceptor to separate, capture and prevent food waste from entering the grease interceptor.
- (f) No sanitary wastewater from restrooms or shower facilities shall discharge through a grease interceptor.
- (g) No user may cause or allow to be introduced into a grease interceptor any chemical, bacterial, enzyme or other additive, directly or indirectly, that interferes with the normal operation of the device or causes pass-through of prohibited substances.



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- (h) All grease interceptors shall be sized and selected in accordance with Appendix B: Grease Interceptor Sizing and Selection.
- (a) A suitable sampling location, approved by the District, shall be installed downstream of a grease interceptor to allow the District to sample the discharge from the grease interceptor system for compliance purposes.

8. User and Establishment Responsibilities:

(a) Kitchen Best Management Practices (BMP)

- a. Dispose of food waste directly into trash receptacles (garbage cans);
- b. Dry wipe or scrape food debris and grease from dishware, pots, and pans into trash receptacle before washing;
- c. Install strainers or screens in all sink drains, floor drains and floor sinks;
- d. Immediately contain and soak up grease spills with absorbent towels or products before mopping the area;
- e. Properly dispose of fryer and waste cooking oil (yellow grease/oil) in recycling barrels or containers. No yellow grease/oil shall be poured into a drain or flushed into the sanitary sewer system; and
- f. Provide regular training to and monitoring of employees on proper and consistent implementation of these BMPs.

(b) Maintenance and Record Keeping

- a. Users are responsible for the proper maintenance of their grease interceptors, whether approved for self-cleaning or using a licensed waste hauler.
- b. GGIs must be cleaned or pumped out a minimum of once every 90 days, or when collected FOG and solids exceed 25% of the interceptor's total liquid volume, whichever comes first, or more often as necessary to ensure the device remains in proper operating condition.
- c. Passive HGI's must be cleaned or pumped out a minimum of once every 90 days, or when collected FOG exceeds the maximum rated storage capacity of the device as determined by third-party test reports, whichever comes first, or more often as necessary to ensure the device remains in proper operating condition.
- d. The District reserves the right to establish or adjust cleaning frequencies for individual establishments as necessary to ensure compliance with this policy.
- e. Users shall maintain a log (Appendix C) of each pumping for the previous three years. This log shall include the date, time, and name of the waste hauler and shall be kept in a conspicuous location on the premises of the establishment for inspection. Trip tickets or



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manifests from the hauler shall be maintained for a period of three years to substantiate the maintenance log. Establishments shall keep their FOG Discharge Permit with the log. Permit, log and manifests shall be made immediately available to District staff upon request.

(c) Grease Interceptor Cleaning Requirements

- a. Users shall use a licensed waste hauler to properly pump out and maintain their grease interceptor(s). Self-cleaning is not allowed unless approved in writing from the District.
- b. Users are responsible for ensuring their grease interceptor is cleaned or pumped in compliance with these cleaning requirements.
- c. The liquid waste hauler, transporter, or other person cleaning or servicing the grease interceptor shall evacuate all contents, including floating materials, wastewater, and bottom sludges and solids. 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 grease interceptor is prohibited.
- d. After complete evacuation of the contents of the interceptor, the walls, top, and bottom of the interceptor shall be thoroughly scraped or pressure washed, the residue removed and the interceptor refilled with fresh water.
- e. The return of gray water back into the interceptor from which the waste was removed (decanting) is prohibited.
- f. Upon completion of the servicing, the user shall sign the trip ticket or manifest provided by the waste hauler and shall make an appropriate entry in the maintenance log.
- g. All waste removed from each grease interceptor shall be disposed of at an establishment permitted and authorized to receive such waste in accordance with all applicable federal, state, and local regulations. In no case, shall the pumped material be returned to any private or public portion of the sanitary sewer system.
- h. It shall be a violation for an establishment to allow grease interceptor waste to be removed from the premises by a waste hauler that does not have all applicable federal, state, or local permits or registrations. Transportation and disposal of grease or other materials generated by a grease interceptor shall be subject to all applicable federal, state and local regulations.
- i. When a GRD is approved for installation, the establishment must empty the collection container attached to the device on a daily basis or more often as necessary. Waste FOG must be disposed of in accordance with the requirements of the District FOG Discharge Policy. The establishment must strictly follow the manufacturer's instructions for daily, weekly, monthly and annual maintenance.

9. Monitoring, Inspection and Entry:

- (a) The District shall have the right to enter the premises of any establishment to determine



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whether the user is complying with all requirements of their FOG Discharge Permit and this FOG Discharge Policy. Users shall allow the District ready access to all parts of the premises for the purposes of inspection, sampling, records examination and the performance of any other required duties during reasonable business hours.

- a. Where an establishment has security measures in force, which require proper identification and clearance before entry into the premises, the establishment shall make necessary arrangements with the security so that, upon presentation of suitable identification, District staff will be permitted to enter immediately for the purposes of performing authorized responsibilities.
 - b. The District shall have the right to set up on the establishment property, or require installation of, such devices as are necessary to conduct sampling and/or metering of the establishments operations.
 - c. The District may require the establishment to install monitoring equipment as necessary. The establishment's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the establishment at the establishment's expense.
 - d. Any temporary or permanent obstruction to safe and easy access to the establishment to be inspected and/or sampled shall be promptly removed by the establishment at the written or verbal request of District staff and shall not be replaced. The costs of clearing such access shall be borne by the establishment.
 - e. Unreasonable delays in allowing District staff to access the establishment's premises shall be a violation of this policy.
- (b) The District shall be notified 72 hours prior to the installation of any grease interceptor for the purpose of inspecting the installation for compliance with the FOG Discharge Policy. No new establishment will be allowed to initiate operations until a grease interceptor is installed, inspected and approved by the District. The District reserves the right to suspend service if the grease interceptor is not in compliance with the FOG Discharge Policy.

10. Violations of Policy:

- (a) It shall be a violation of the FOG Policy for any establishment to:
- a. Modify a grease interceptor structure or internal components without the consent or approval of the District including alteration or removal of any flow restricting devices to cause flow to rise above the design capacity of the grease interceptor;
 - b. Provide false maintenance records;
 - c. Cause or allow to be caused plugging, blocking, or interference with a grease interceptor; and/or
 - d. Not comply with the provisions of a FOG Discharge Permit or the FOG Discharge Policy.



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- (b) No user or establishment, including non-permitted establishments, shall discharge FOG in excess of 200 mg/L to the sanitary sewer collection system. If such discharge occurs, the user or establishment shall be considered in violation of this policy and subject to the remedies described herein.
- (c) No user or establishment shall contribute or cause to be contributed into a grease interceptor or the sanitary sewer system any of the following:
 - a. Hot water running in excess of 140 °F;
 - b. Concentrated alkaline or acidic solutions;
 - c. Concentrated detergents, emulsifiers, de-emulsifiers, surface active agents, enzymes, degreasers, solvents or any type of product that will liquefy grease interceptor wastes;
 - d. Any substance that may cause excessive foaming in the sanitary sewer system;
 - e. Hazardous wastes including concentrated cleaners, pesticides, herbicides, paints, solvents, gasoline or other petroleum products; or
 - f. Waste fats, oils and grease not generated as part of the establishments approved business operations.
- (d) Any person found to be violating any provision of this ordinance shall be served by the District with written notice stating the nature of the violation and providing a reasonable time limit for the satisfactory correction thereof. The offender shall, within the period of time stated in such notice, permanently cease all violations.
- (e) Any person who shall continue any violation beyond the time limit provided for in Section 10, subsection (d) of this policy shall be guilty of a misdemeanor, and on conviction thereof shall be fined in accordance with Scarborough Sanitary District Sewer Regulations, Article X. Each day in which any such violation shall continue shall be deemed a separate offense.
- (f) Any person violating any of the provisions of this ordinance shall become liable to the District for any expense, loss, or damage occasioned the District by reason of such violation.
- (g) The failure to make any payment required pursuant to the provisions of this policy or the violation of any of the provisions herein shall constitute cause for the revocation of any allocations made or permits issued hereunder. The District may, after notice and hearing, and upon a finding that a violation of this policy exists, suspend or revoke any allocations or permits and make such further orders as may be required to secure compliance with this policy.



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Appendix A: FOG Discharge Permit Application

In order for the District to issue a FOG Discharge Permit, applicants must complete and return this application.

- ▶ This application must be filled out completely. Applications with missing information will be returned to the applicant. **Please write N/A if the information being requested does not apply.**
- ▶ This application must be signed by an official company representative. Applications not signed by the proper company official will be returned to the applicant.
- ▶ All drawings, diagrams, submittals and any other documentation as required by this application must be submitted with the application. Applications missing required documentation will be returned to the applicant.
- ▶ A \$75.00 application fee is due at the time the application is submitted to the District. Applications submitted without the application fee will be returned to the applicant.
- ▶ Applications that have been approved will receive a FOG Discharge Permit, which contains specific requirements for compliance. The FOG Discharge Permit must be kept with the establishments maintenance log as required by the FOG Discharge Policy.

<u>For Official Use Only</u>
Date of approval: _____
Sewer Acct. No.: _____
Signed: _____ David Hughes, Superintendent

Section A: Facility Information

1. Applicant _____
Corporation or Establishment Name
2. Doing Business as _____
Establishment Name used at Sewer Service Address Listed Below
3. Sewer Service Address

Street	City	State	Zip Code
4. Phone No. () _____ Fax Number () _____
5. Name of Owner, a General Partner, or Chief Executive Officer

Name	Title	
Street	City State Zip Code	
Phone No.	Fax No.	Email



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6. Name of Designated Representative and Signatory for the establishment who can be served with notices and is responsible for signing all correspondence and reports.

Please check if this is the same person identified on Line 6 or provide the information below:

Name		Title	
Street	City	State	Zip Code
Phone No.	Fax No.	Email	

7. Facility Contact During Inspections

Name	Title
Phone No.	

8. Application Type (select one)

- New Business/Operator
- Renewal of Permit, No Changes Requested
- Transfer of Ownership or Name Change of Existing Permitted Establishment
- Modification of Existing Permitted Establishment (including modifications to grease interceptor, modifications to establishment size/area, and changes of use)

Section B: Facility Operational Characteristics

1. What type of menu best describes the establishment:

- | | | |
|--|---|--|
| <input type="checkbox"/> Bakery | <input type="checkbox"/> Convenience Store | <input type="checkbox"/> Indian |
| <input type="checkbox"/> Bar and Grille | <input type="checkbox"/> Deep Fried Chicken / Seafood | <input type="checkbox"/> Italian |
| <input type="checkbox"/> Barbeque | <input type="checkbox"/> Deli | <input type="checkbox"/> Mexican, Fast Food |
| <input type="checkbox"/> Hotel Breakfast Bar | <input type="checkbox"/> Family Restaurant | <input type="checkbox"/> Mexican, Full Fare |
| <input type="checkbox"/> Buffet | <input type="checkbox"/> Frozen Yogurt | <input type="checkbox"/> Pizza |
| <input type="checkbox"/> Burger and Fries, | <input type="checkbox"/> Greek | <input type="checkbox"/> Religious Institution |
| <input type="checkbox"/> Cafeteria | <input type="checkbox"/> Grocery Bakery | <input type="checkbox"/> Sandwich Shop |
| <input type="checkbox"/> Caterer | <input type="checkbox"/> Grocery Deli | <input type="checkbox"/> Snack Bar |
| <input type="checkbox"/> Chinese | <input type="checkbox"/> Grocery Meat Department | <input type="checkbox"/> Steak and Seafood |
| <input type="checkbox"/> Coffee Shop | <input type="checkbox"/> Ice Cream | <input type="checkbox"/> Sushi |



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2. Please check the type of equipment and list the quantity the establishment has or will have:

- | | | |
|--|---|--|
| <input type="checkbox"/> Three Comp Sink _____ | <input type="checkbox"/> Floor Sinks _____ | <input type="checkbox"/> Deep Fryer _____ |
| <input type="checkbox"/> Two Comp Sink _____ | <input type="checkbox"/> Mop Sinks _____ | <input type="checkbox"/> Charbroiler _____ |
| <input type="checkbox"/> Pre-rinse Sinks _____ | <input type="checkbox"/> Garbage Disposal _____ | <input type="checkbox"/> Griddle _____ |
| <input type="checkbox"/> Hand Sinks _____ | <input type="checkbox"/> Dishwasher _____ | <input type="checkbox"/> Grill _____ |
| <input type="checkbox"/> Bar Sinks _____ | <input type="checkbox"/> Auto Hood Wash _____ | <input type="checkbox"/> Oven _____ |
| <input type="checkbox"/> Soup Kettles _____ | <input type="checkbox"/> Clothes Washer _____ | <input type="checkbox"/> Rotisserie _____ |
| <input type="checkbox"/> Wok Stations _____ | <input type="checkbox"/> Other _____ | <input type="checkbox"/> Stove _____ |
| <input type="checkbox"/> Floor Drains _____ | <input type="checkbox"/> Other _____ | <input type="checkbox"/> Other _____ |

If you checked other for fixtures and/or equipment, please list the items individually here:

3. Please list your establishments standard hours of operation, or check 24 hours or closed:

- | | | | |
|--|--|----------------|--|
| Sunday _____ | <input type="checkbox"/> 24 Hours or <input type="checkbox"/> Closed | Thursday _____ | <input type="checkbox"/> 24 Hours or <input type="checkbox"/> Closed |
| Monday _____ | <input type="checkbox"/> 24 Hours or <input type="checkbox"/> Closed | Friday _____ | <input type="checkbox"/> 24 Hours or <input type="checkbox"/> Closed |
| Tuesday _____ | <input type="checkbox"/> 24 Hours or <input type="checkbox"/> Closed | Saturday _____ | <input type="checkbox"/> 24 Hours or <input type="checkbox"/> Closed |
| Wednesday _____ | <input type="checkbox"/> 24 Hours or <input type="checkbox"/> Closed | | |
| Total number of days open during 90-day period _____ | | | |

4. Miscellaneous information:

- | | |
|---|--|
| Number of employees _____ | <input type="checkbox"/> Disposable, or <input type="checkbox"/> Washable Flatware |
| Seating capacity (indoors) _____ | Seating capacity (outdoors) _____ |
| Average Customers or Meals served per day _____ | |

5. Contracted Waste Hauler Name: _____
Address: _____ Phone: _____

6. Grease Interceptor Information:

Grease interceptor must be sized and selected in accordance with **Appendix B: Grease Interceptor Sizing and Selection**. For establishments with existing grease interceptor or for new installations, provide the required information here.

- | | |
|---|---|
| <input type="checkbox"/> Gravity Grease Interceptor (GGI) | <input type="checkbox"/> Hydromechanical Grease Interceptor (HGI) |
| <input type="checkbox"/> Grease Removal Device (GRD) | <input type="checkbox"/> Other |

GGI Required Information: New Installation Existing Installation

Make and model of the selected GGI: _____ Size (Gallons) _____

What material is the selected GGI made from: _____



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HGI Required Information:

New Installation Existing Installation

Interior Installation

Exterior installation

Make and model of the HGI selected: _____

Max flow rate of the HGI (GPM): _____ Substantiated grease capacity (lbs): _____

What material is the selected HGI made from: _____

GRD Requested for Approval:

New Installation Existing Installation

Make and model: _____ Flow Rate (GPM): _____

Other Device or Technology Requested for Approval:

New Installation Existing

Describe (attach additional description/information separately): _____

7. Attach a submittal of the proposed GGI(s), HGI(s), GRD(s) or Other device or technology.
8. Attach Grease Interceptor Sizing and Selection Worksheet from FOG Discharge Policy Appendix B.
9. If requesting an interior installation of a HGI, attach a written explanation for the request and the site-specific limitations that would prevent an exterior installation.
10. If submitting a GRD for approval, attach a written explanation for the request and the site-specific limitations that would prevent the installation of either a GGI or HGI exterior to the building or the limitations that would prevent an interior installation of an HGI.
11. Attach a copy of the establishment layout along with the indoor and outdoor plumbing diagrams, which should include the location of all water meters, sewer connections, grease interceptors, sampling locations, and where required solids interceptors, as well as all fixtures and equipment.
12. Attach a site map with the establishments footprint, surrounding streets and landmarks, and connections to the District sanitary sewer system.

Authorized Representative Statement:

I hereby certify that, to the best of my knowledge, the information provided in this application is true and accurate. I have read, understand and will comply with the Districts FOG Discharge Policy. I acknowledge that changes in cooking methods, volumes, and hours of operation may require re-application and possible increase in the size or type of grease interceptor required. I certify that grease interceptor(s) will be cleaned in accordance with the FOG Discharge Policy at least once every 90 days, or as directed by the District.

Name (printed): _____ Date: _____

Signed: _____



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Appendix B: Grease Interceptor Sizing and Selection

The following sizing criteria for gravity grease interceptors (GGI) and passive hydromechanical grease interceptors (HGI) shall apply.

Fixtures

The District FOG Discharge Policy requires all fixtures in a commercial kitchen be connected to a grease interceptor, including but not limited to pot sinks, pre-rinse sinks, hand sinks in the kitchen or bar service area, bar sinks, soup kettles or similar devices, wok stations, floor drains, floor sinks, mop sinks, automatic hood wash units, dishwashers without pre-rinse sinks, clothes washing machines located within kitchen area, and any other fixtures or drains into which grease is likely to be discharged.

Gravity Grease Interceptors

Gravity grease interceptors shall be sized for liquid volume based on one of the following methods:

Drainage Fixture Unit Sizing

The liquid volume of the interceptor shall be determined by drainage fixture units (DFU) according to Table 1:

Table 1

Drainage Fixture Units (DFU) ¹	Minimum GGI (gallons) ²
11	750
18	1000
45	1250
86	1500
108	2000
154	2500
172	3000
216	4000
288	5000
360	7500
1056	10000
1320	15000

¹ The maximum allowable DFUs plumbed to the kitchen drain lines that will be connected to the grease interceptor

² Size in gallons based on DFUs, pipe diameter from Uniform Plumbing Code Table 703.2, based on flow in half-full pipes, with a 60-minute retention time



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Where the flow rate of directly connected fixtures or appliances have no assigned DFU values, the additional grease interceptor volume shall be based on the known flow rate (GPM) multiplied by 60-minutes.

Pipe Diameter Sizing

When the final configuration of kitchen fixtures in an establishment is unknown or to allow for the addition of fixtures in the future, the minimum interceptor volume may be determined by the diameter of the drainage pipe leading from the establishment according to Table 2:

Table 2

Pipe Size (inches)	Minimum GGI (gallons) ³
2	750
3	2000
4	4000
5	7500
6	12000
8	15000

³ Size in gallons based on half-full pipes with a 60-minute retention time

Hydromechanical Grease Interceptors (passive)

The District has adopted the following two-step sizing methodology for passive hydromechanical grease interceptors regardless whether the unit will be installed outdoors or is approved by the District for indoor installation:

Step 1: Size by Flow Rate

The minimum flow rate for a passive HGI may be calculated by either using pipe diameter or fixture volume using either a one-minute or two-minute drainage period. Use a one-minute drainage period when the interceptor is installed within 20 feet of directly connected fixtures and/or has indirectly connected fixtures. When the interceptor will be installed exterior to the building beyond 20 feet of the connected fixtures use a two-minute drainage period.

Fixture Volume Sizing

Use the following formula for sizing fixtures by volume with a 75% fill factor:

$$\frac{L \times W \times H}{231} \times 0.75 = \text{Fixture Capacity Gallons}$$

Fixture Capacity Gallons x 1 = one-minute drainage period (GPM)

Fixture Capacity Gallons x 0.5 = two-minute drainage period (GPM)



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Example: three compartment sink with each compartment being 18 x 24 x 12 inches

- 18 x 24 x 12 = 5184 cubic inches (in³)
- 5184 / 231 = 22.44 fixture capacity gallons
- 22.44 x 3 = 67.3 total fixture capacity gallons (three bowls)
- 67.3 x 0.75 = 50.4 total fixture capacity after loading factor (75%)
- 50.4 x 1 = 50 GPM one-minute drainage period
- 50.4 x 0.5 = 25 GPM two-minute drainage period

To determine the minimum required flow rate for the HGI, calculate the capacity of each fixture that will be connected and add the volumes together and use the appropriate drainage period. An appropriate HGI must be certified to meet the minimum flow rate as calculated. Multiple HGIs may be used separately or combined to meet the flow rate requirement.

Pipe Diameter Sizing

When the final configuration of kitchen fixtures in an establishment is unknown or to allow for the addition of fixtures in the future, the minimum interceptor volume may be determined by the diameter of the drainage pipe leading from the establishment according to Table 3:

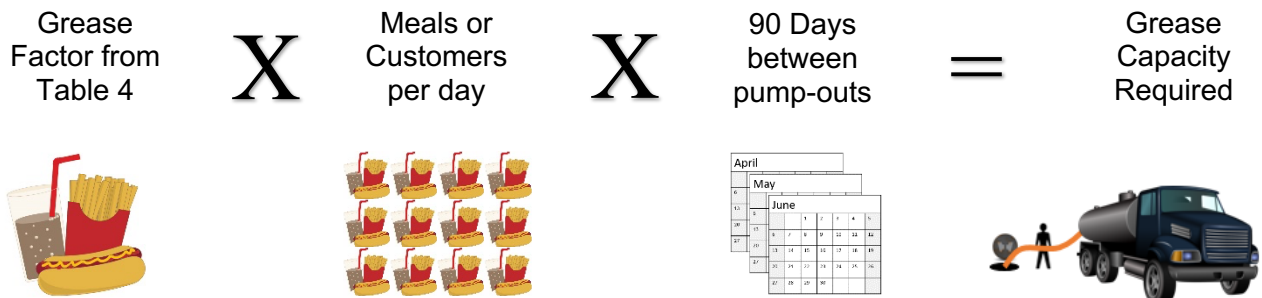
Table 3

Pipe Size (inches)	Full-Pipe Flow (GPM) ⁴	One-minute drainage period (GPM)	Two-minute drainage period (GPM)
2	20	20	10
3	60	75	35
4	125	125	75
5	230	250	125
6	375	400	200
8	426	500	250

⁴ 1/4 inch per foot based on Manning's formula with friction factor N = 0.012

Step 2: Calculate Grease Capacity

Once the minimum flow rate has been established in Step 1, calculate the minimum grease storage capacity for the HGI required for a 90-day pump-out frequency as follows:





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To determine the correct grease factor, using Table 4, select the menu type (1 through 29), then the correct column (A through D) for whether there is a fryer and whether the establishment uses disposable or washable plates, glasses, knives, forks and spoons (flatware).

Table 4

Type	Menu	Grease Factor ->	without Fryer	without fryer	with fryer	with fryer
			without flatware	with flatware	without flatware	with flatware
			A	B	C	D
1	Bakery		0.035	0.0455	0.35	0.455
2	Bar and Grille		0.005	0.0065	0.025	0.0325
3	Barbeque		0.035	0.0455	0.035	0.0455
4	Breakfast Bar - Hotel		0.005	0.0065	0.025	0.0325
5	Buffet		0.035	0.0455	0.058	0.0754
6	Burger and fries, fast food		0.035	0.0455	0.035	0.0455
7	Cafeteria		0.025	0.0325	0.035	0.0455
8	Caterer		0.005	0.0065	0.025	0.0325
9	Chinese		0.035	0.0455	0.058	0.0754
10	coffee shop		0.025	0.0325	0.035	0.0455
11	Convenience Store		0.005	0.0065	0.025	0.0325
12	Deep fried Chicken / seafood		0.035	0.0455	0.058	0.0754
13	Deli		0.005	0.0065	0.025	0.0325
14	Family Restaurant		0.035	0.0455	0.035	0.0455
15	Frozen Yogurt		0.005	0.0065	0.025	0.0325
16	Greek		0.025	0.0325	0.035	0.0455
17	Grocery Bakery		0.025	0.0325	0.035	0.0455
18	Grocery Deli		0.025	0.0325	0.035	0.0455
19	Grocery Meat Department		0.025	0.0325	0.025	0.0325
20	Ice Cream		0.025	0.0325	0.035	0.0455
21	Indian		0.025	0.0325	0.035	0.0455
22	Italian		0.035	0.0455	0.035	0.0455
23	Mexican, fast food		0.035	0.0455	0.035	0.0455
24	Mexican, full fare		0.035	0.0455	0.058	0.0754
25	Pizza		0.025	0.0325	0.035	0.0455
26	Religious Institution		0.005	0.0065	0.025	0.0325
27	Sandwich shop		0.005	0.0065	0.025	0.0325
28	Snack Bar		0.005	0.0065	0.025	0.0325
29	Steak and seafood		0.035	0.0455	0.058	0.0754
30	Sushi		0.005	0.0065	0.025	0.0325



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Example: Fast food burgers and fries, with fryer, with disposable flatware, serving 300 meals per day

Grease factor from Table 4 6C = 0.035 pounds per meal

Meals per day = 300

Days between pump-outs⁵ = 90

$0.035 \times 300 \times 90 = 945$ pounds' grease capacity required.

⁵Establishments that are not open every day, may calculate the number of days actually open in a 90-day period and use that to calculate the total amount of grease capacity required.

The correctly sized and selected grease interceptor will have the minimum flow rate determined in Step 1 and the grease storage capacity calculated in Step 2. Multiple grease interceptors may be installed to satisfy the minimum flow rate requirement, the minimum grease storage capacity, or both.

Grease interceptors certified to meet the minimum requirements of ASME A112.14.3 and CSA B481, or are certified to a Rated Grease Capacity under PDI G101, shall have the flow rates and minimum grease storage capacities as listed in Table 5:

Table 5

HGI Flow Rate	Minimum Grease Storage Capacity ⁶ (lbs)
20	40
25	50
35	70
50	100
75	150
100	200

⁶ Minimum grease capacity as required by ASME A112.14.3, PDI G101 and CSA B481

Grease interceptors claiming grease capacities exceeding the minimum requirements in Table 5, shall be approved by the District when the manufacturer can demonstrate by third-party test reports, including the incremental test data, that the interceptor(s) has the capacity claimed. Upon approval from the District, a high-capacity HGIs' substantiated grease storage capacity may be used in selecting the sizes and required number of units to satisfy the requirements of this two-step sizing method.

The District has reviewed certain high-capacity HGIs and listed the manufacturer, model number, flow rate, substantiated grease capacity, and the flow control requirement for each device in Table 6. The District does not endorse these products and establishments are free to choose the unit that works best for their individual operations, including certified units not listed in the Table. The Table will be updated as other devices are reviewed and their capacities substantiated.



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Grease Interceptor Sizing and Selection Worksheet

Table 7

Qty	Fixture Type	Actual			Fixture ⁷ Capacity (gallons)	Flow ⁸ Rate GPM	DFU	Total ⁹ GPM	Total ¹⁰ DFU
		L	W	H					
	Multi-Compartment Four Bowls						8		
	Multi-Compartment Three Bowls						6		
	Multi-Compartment Two Bowls						4		
	Prep Sink Two Bowls						4		
	Prep Sink One Bowl						2		
	Pre-Rinse Sink One Bowl						2		
	Dump Sink One Bowl						2		
	Bar Sink One Bowl						2		
	Soup Kettle Large				100	27	6		
	Soup Kettle Medium				50	27	4		
	Soup Kettle Small				20	20	2		
	Clothes Washer					2	2		
	Dipper Well (circulating water)					3	1		
	Dishwasher - Conveyer type					5	2		
	Dishwasher - Rack type					2	2		
	Hand Sink					3	3		
	Ice Machine (with drain)					1	1		
	Mop Basin					10	3		
	Warming Table (with drain)					1	1		
	Wok Range					12	2		
	Floor Drain						2		
	Floor Drain Emergency						2		
	Floor Sink						2		
	Food Waste Disposal						3		
							Grand Total¹¹:		

⁷ $((L*W*H)/231)*(number\ of\ bowls)*0.75 = Total\ Fixture\ Capacity\ (gallons)$

⁸Total Fixture Capacity*1.0 = Flow Rate (GPM)

⁹Flow Rate*Qty = Total GPM

¹⁰DFU*Qty = Total DFU

¹¹Grand Total GPM*1.0 = One-minute Drainage Period

Grand Total GPM*0.50 = Two-minute Drainage Period



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Grease Interceptor Sizing and Selection Worksheet

What type of grease interceptor is proposed for this establishment:

- Gravity Grease Interceptor (GGI) Hydromechanical Grease Interceptor (HGI)

GGI Required Information:

1. Grand Total DFUs (Table 7): _____ Minimum Size GGI (Table 1): _____
2. OR, Pipe Diameter (Table 2): _____ Minimum Size GGI (Table 2): _____
3. Make and model of the selected GGI: _____ Size (Gallons) _____
4. What material is the selected GGI made from: _____

HGI Required Information:

1. Interior Installation Exterior Installation
2. Are there indirectly connected fixtures routed to the HGI? Yes No
3. Will the interceptor be installed within 20 feet of the fixtures? Yes No

Note: for interior installations, if the answer to either question 2 or 3 is YES, use a one-minute drainage period, otherwise use a two-minute drainage period. For exterior installations use a two-minute drainage period.

Step 1: Calculated Flow Rate

1. Total Fixture Volume (Table 7): _____ Flow Rate GPM (one or two-minute): _____
2. OR, Pipe Diameter (Table 3): _____ Flow Rate GPM (one or two-minute): _____

Step 2: Calculated Grease Capacity

Grease Factor (Table 4): _____ Meals or customers served per day: _____

Days open 90-day period: _____ Grease produced 90-day period (lbs)¹²: _____

¹²Calculation: Grease factor*Meals or customers per day*Days open in 90-day period

Note: The correctly sized and selected HGI(s) will have the minimum required flow rate determined in Step 1 and the minimum substantiated grease capacity determined in Step 2.

What is the make and model of the HGI selected: _____

Max flow rate of the HGI (GPM): _____ Substantiated grease capacity (lbs): _____



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Appendix C: Establishment Maintenance Log

Sewer Account No.: _____ Permit No.: _____

Name of Establishment: _____

Date	Time	Initials of Employee Witnessing Cleaning	Waste Hauler or Employee (when approved for self-cleaning)	Initials of Waste Hauler or Employee	Notes



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Maintenance and Record Keeping

- a. Users are responsible for the proper maintenance of their grease interceptors, whether approved for self-cleaning or using a licensed waste hauler.
- b. Grease Interceptors must be cleaned or pumped out at the frequency established by the District as indicated on the FOG Discharge Permit.
- c. The District reserves the right to establish or adjust cleaning frequencies for individual establishments as necessary to ensure compliance with the FOG Discharge Policy.
- d. Users shall maintain a log (page C1 of this Appendix) of each pumping for the previous three years. This log shall include the date, time, and name of the waste hauler and shall be kept in a conspicuous location on the premises of the establishment for inspection.
- e. Trip tickets or manifests from the hauler shall be maintained for a period of three years to substantiate the maintenance log.
- f. Establishments shall keep their FOG Discharge Permit with the log. Permit, log and manifests shall be made immediately available to District staff upon request.

Grease Interceptor Cleaning Requirements

- j. Users shall use a licensed waste hauler to properly pump out and maintain their grease interceptor(s). Self-cleaning is not allowed unless approved in writing from the District.
- k. Users are responsible for ensuring their grease interceptor is cleaned or pumped in compliance with these cleaning requirements.
- l. The liquid waste hauler, transporter, or other person cleaning or servicing the grease interceptor shall evacuate all contents, including floating materials, wastewater, and bottom sludges and solids. 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 grease interceptor is prohibited.
- m. After complete evacuation of the contents of the interceptor, the walls, top, and bottom of the interceptor shall be thoroughly scraped or pressure washed, the residue removed and the interceptor refilled with fresh water.
- n. The return of gray water back into the interceptor from which the waste was removed (decanting) is prohibited.
- o. Upon completion of the servicing, the user shall sign the trip ticket or manifest provided by the waste hauler and shall make an appropriate entry in the maintenance log.
- p. All waste removed from each grease interceptor shall be disposed of at an establishment permitted and authorized to receive such waste in accordance with all applicable federal, state, and local regulations. In no case, shall the pumped material be returned to any private or public portion of the sanitary sewer system.
- q. It shall be a violation for an establishment to allow grease interceptor waste to be removed from the premises by a waste hauler that does not have all applicable federal, state, or local permits or registrations. Transportation and disposal of grease or other materials generated by a grease interceptor shall be subject to all applicable federal, state and local regulations.

When a GRD is approved for installation, the establishment must empty the collection container attached to the device on a daily basis or more often as necessary. Waste FOG must be disposed of in accordance with the requirements of the District FOG Discharge Policy. The establishment must strictly follow the manufacturer's instructions for daily, weekly, monthly and annual maintenance.



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Kitchen Best Management Practices (BMP)

The following kitchen BMPs will help reduce the cost to clean and maintain your establishments drainage piping system as well as your grease interceptor(s).



Dispose of food waste directly into trash receptacles or recycling bins



Properly dispose of fryer and waste cooking oil (yellow grease) in recycling barrels or containers. Do not dispose of down kitchen drains.



Install and keep food strainers in all kitchen sinks, floor sinks and floor drains and regularly empty into trash



Immediately contain and soak up spilled grease with disposable absorbent towels or products before mopping the area



Dry-wipe or scrape food debris and grease from dishware, pots, and pans into trash receptacles before washing



Provide Regular training to and monitoring of employees on proper and consistent implementation of these BMPs