City of Great Falls Utilities F.O.G. (Fats, Oil, & Grease)Program Manual and Management Policy

Great Falls F.O.G. Program

Introduction

According to the National Restaurant Association; used cooking grease in wastewater discharged from restaurants are causing **Fats**, **Oil**, and **Grease** (**FOG**) blockages in sewer lines. FOG is a substance that is created from food scraps and waste, or petroleum waste. When the wastewater from food service facilities contains grease, the hot water and soap used in washing dishes and equipment emulsifies or breaks up the grease, allowing it to flow freely through the sewer. As the wastewater cools, the grease congeals and forms clumps that stick to the sewer lines causing backups and overflows of raw sewage. These grease blockages can cause back-ups into kitchens or basements, or can lead to Sanitary Sewer Overflows (SSOs) which can cause untreated sewage to flow onto streets and travel to storm drains, and into the Missouri River. SSOs have become the focus of many large lawsuits and are being reported to Congress by the EPA. This has made the control of grease blockages a high priority for the EPA, who are now requiring municipalities to adopt FOG Control Programs that include controlling FOG discharge from restaurants.

August 3rd of 2010, the City of Great Falls adopted an ordinance providing the authority for an outline of the FOG Sector Control Program. On April 14, 2014, the City entered into a Consent Decree agreement with the United States Environmental Protection Agency (EPA) and Montana Department of Environmental Quality (MDEQ) as a resolution to pending formal environmental regulatory enforcement under the Federal Clean Water Act. The Consent Decree resolved alleged violations that the City was not appropriately implementing the Industrial Pretreatment Program and other alleged violations related to operation and maintenance of the wastewater collection system. The Consent Decree required the City to develop and implement a Capacity, Management, Operational, and Maintenance (CMOM) program to address SSOs. The CMOM program concluded that many of the SSOs experienced were associated with FOG accumulation in the sewer collection system. As such, the Consent Decree required that a component of the CMOM program included implementation of a program that more rigorously regulates discharges of FOG to the sewer collection system.

The City of Great Falls adopted a Fats, Oils, and Grease (FOG) Control and Pretreatment Program to assist with FOG prevention. The provisions of the program are applicable to dischargers and to the potential introduction of pollutants into treatment works resulting from the production or use of Fats, Oils and Grease. The types of establishments this program applies to include, but are not limited to Brewery Pubs, Butcher Shops, Churches, Commissaries, Grocery Stores, Mobile Food Units, Hotels/Motels, Nursing Homes, Department Store Eateries, Cinemas, Café's, Coffee Shops, Smoothie and Juice Shops, Ice Cream Shops, Fairground Eateries, Rented Commercial Kitchens, and Restaurants (All Types).

The City spends thousands of dollars per month to perform extra maintenance on its sewer system due to excess FOG. Grease removal devices like interceptors, hydro-mechanical grease traps and other BMPs are designed to prevent grease related problems in the sanitary sewer. This manual provides the City's FOG control program requirements in accordance with the Official Code of the City of Great Falls and federal requirements. Also included is information about FOG and an informative poster and educational information for your facility and staff. The City of Great Falls wants to work with business owner and managers to prevent FOG problems from affecting businesses and the community's sewer system. Please direct any questions regarding this program to the Sector Control Compliance Technician at (406) 727-8390.

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Management Policy

The City's FOG Management Policy is provided for within the Official Code of the City of Great Falls (OCCGF) at 13.12.090, "Sector Control Program." This section of the OCCGF provides authority for the City to establish programs (Management Program) to control specific pollutants discharged to the sanitary sewer in order to prevent the introduction of pollutants into the Publicly Owned Treatment Works (POTW) that will interfere with the operation of the POTW.

Section 13.12.090 further provides authority for the City to:

- Require closure of plumbing, treatment devices and other system components when they are no longer required.
- Issue variances to requirements to install grease interceptors, hydro-mechanical grease traps and other Best Management Practices (BMPs) as appropriate.
- Provide compliance and enforcement of the program requirements.
- Control pollutants (in this case FOG) using Best Management Practices(BMPs).
- Review new facilities and facilities undergoing any physical change(s), change in ownership, change in operation, or other change that could affect the nature of the wastewater discharged.
- Require facilities to notify the City prior to specific events.

Program Description and Implementation

Under this program City personnel or authorized agents will:

- Require and conduct review of control devices for new, modified and existing facilities.
- Make site visits to provide education materials, outreach, and technical assistance.
- Conduct onsite compliance inspections to review facility compliance with this program.
- Provide compliance feedback and take appropriate enforcement action in accordance with the City's Industrial Pretreatment Enforcement Response Plan.

Device Requirements

- All new and modified food service establishments, or other industrial or commercial enterprises shall provide grease removal devices and or BMPs.
- Grease control devices will be required for existing facilities when, in the opinion of the City, they are necessary to prevent excessive amounts of FOG from entering the POTW in amounts that interfere or disrupt POTW operation.
- FOG pretreatment devices must be sized and configured according to common engineering standards in order to prevent discharge of FOG that will interfere or disrupt POTW operation.
- All FOG pretreatment devices shall be located so that maintenance and inspections can be easily performed. The refusal of any FOG facility to allow City personnel entry for inspection will be considered a violation of this policy and City Ordinance 13.12.010 (G) Right of Entry.
- The FOG pretreatment device manufacturer's recommendations or this document's requirements (whichever is more stringent) must be followed for installation and maintenance.
- Based upon review of all relevant information, the City may require installation, repair, modification, or replacement of FOG pretreatment device.

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Device Operation and Maintenance Requirements and Prohibitions

FOG device maintenance is the responsibility of the user, or the owner in the case of multiple users. The following FOG pretreatment device maintenance requirements and prohibitions apply.

- Devices shall be maintained to eliminate discharge of FOG concentrations that will result in obstruction in the sewer or otherwise result in interference with operation of the POTW.
- All large-volume (greater than 600 gallon) grease control interceptors shall be serviced necessary to maintain minimum design capacity. Accumulation of floatable and/or settled waste shall not exceed 25% of the total volume of the interceptor unless otherwise recommended in writing by the device manufacturer.
- All small hydro-mechanical grease control devices (less than 600 gallons) shall be serviced as required to maintain minimum design capacity.
- The use of enzymes, detergents, or other emulsifying additives to prevent the accumulation of FOG in any grease control pretreatment device (interceptor or hydro-mechanical grease trap) is prohibited.

Record Keeping and Notifications Requirements

Records to Keep: The following records shall be maintained on-site for 3 years and available for inspection upon request:

- FOG pretreatment device cleaning maintenance log books or forms. Information retained shall include facility name, location, date, time of cleaning, type of device cleaned, person or company performing the service, and signature of facility personnel confirming service completion.
- Pretreatment device cleaning/maintenance haul manifests.
- FOG training records including date, duration of training, location, initials of the trainer, attendees and FOG training topic.
- Pretreatment device capacity monitoring log including date, time,device name or description and initials of person taking the measurement.

Notifications: All FSEs must notify the City Public Works Department in writing, at the address below, 30 days prior to the following events:

Sector Control Program
Public Works - Environmental Division
PO Box 5021
Great Falls, MT 59403

- Sale or transfer of ownership of the business.
- Change in trade name under which the business is operated.
- Change in the nature of the services provided or devices operated that affect the potential to discharge FOG.
- Submittal of plans to Building and Zoning to remodel the facility or a new facility.
- Facility closure.

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Storm Drains

- Keep FOG from polluting the storm drain system and rivers.

Exhaust Hood System

- Inspect the exhaust system to prevent grease build up for Fire Prevention.
- Clean vent hoods and filters on a regular basis or hire a service company to maintain the exhaust system.
- Maintain the grease containment system that catches the excess grease that travels from your hoods and onto your rooftop. The container should be noncombustible, closed off to rain.

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Frequently Asked Questions

What is F.O.G.?

FOG is short for Fats, Oils, and Grease. FOG is found in many foods; such as meats, sauces, salad dressings, foods cooked in deep fat fryers, cookies, pastries, dairy products, coffee syrups and creamers and many, many more.

Why is FOG a problem?

FOG in the sanitary sewer system coats the insides of the pipes, causing maintenance problems. The consequences include reduced sewer capacity and pipe blockages which can lead to sanitary sewer stoppages and overflows. These overflows are public health and environmental hazards, as well as a financial burden to residents, businesses, and the City. FOG can also damage equipment and accessories vital to the proper operation of the wastewater utility.

What is the difference between a Hydro mechanical grease trap and a grease interceptor?

The two significant differences between them is size and location. A hydro mechanical grease trap is a small device that is located inside the facility and generally placed under a sink. A grease interceptor is a vault with a minimum capacity of around 600 gallons and some can exceed 2000 gallon capacity. These devices are generally buried outside the facility and in the ground. Both are designed as a holding device that allows the fats, oils, and grease to separate from the water, congeal, and rise to the surface to be removed rather than be introduced into the sewer system.

I don't use grease; do I still need a hydro mechanical grease trap/interceptor?

You may. Even if you don't fry foods, your restaurant/business is still contributing to the FOG problem if you don't have proper preventive devices in place and maintained. Washing dishes and silverware, or food preparation utensils, adds FOG waste to the City sewer system.

Who determines if I need a hydro mechanical grease trap/interceptor?

During new construction or remodel, you may be required to install a hydro mechanical grease trap or grease interceptor in accordance with the current plumbing code.

Existing businesses may be required to install an appropriately sized grease control device if the City determines this requirement is due to:

- Increased cleaning frequency of the City sewer , to remove oil/grease obstruction or interference or ;
- A Sanitary Sewer Overflow (SSO) was attributed to a user's discharge and/or has caused or has the potential to cause an SSO due to discharge of oil and grease entering into the City sewer system.

What are BMPs?

BMP stands for Best Management Practice. BMPs are useful for reducing the amount of FOG that goes down the drain, thereby reducing the risk of clogged pipes and sanitary sewer overflows. A great example of a BMP is wiping excess grease and food wastes out of pots, pans, and dishes before washing them.

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Technical Assistance

How to Clean a Hydro mechanical Grease Trap

1. Never enter a grease trap without the appropriate confined spaceprecautions.
2. Measure device contents to determine if capacity is less than 25%.
3. Schedule trap cleaning prior to the start of the business day.

   (Grease will be congealed and easier to remove when the grease trap is cold.)
4. Remove access lid.
5. Remove and clean screening device, if applicable.
6. Using a dedicated scraping device, clean sidewalls and baffle plates. Putgrease in a sealed bag or container, and discard in the garbage.
7. Using a mesh-type screening device or screen, skim all floating grease, leaving the water behind. Put grease in a sealed bag or container, and discardin the garbage.
8. Remove build-up of food particles at the bottom if necessary. Liquid wastehaulers are usually hired to vacuum the unit empty.
9. Fill with **cold** water.
10. Replace screening device and ensure access lid is airtight.
11. Record the cleaning on the maintenance log form or log book.

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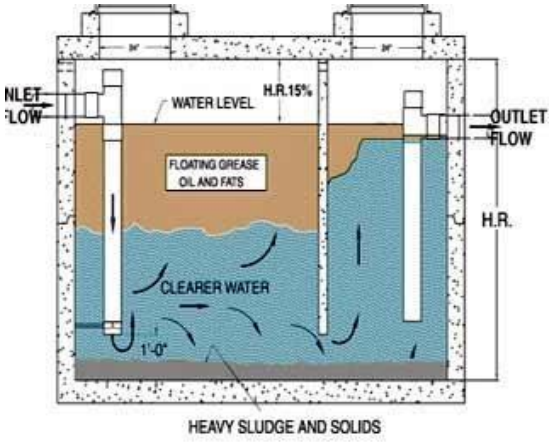
Technical Assistance

How to Clean a Grease Interceptor

1. Schedule a cleaning when an employee of your establishment can be presentto ensure that the interceptor is cleaned properly.
2. Never enter a grease interceptor without the appropriate confined spaceprecautions.
3. Measure device contents to determine capacity is less than 25%
4. Plug outlet or use other measures to ensure material does not exit the greaseinterceptor into the sewer during the cleaning process.
5. Pump grease interceptor dry and scrape or pressure wash walls and bafflesto remove grease each time the interceptor is pumped out.
6. Recharge the Grease Interceptor with **cold** clean water from **within** the establishment (**not** by decanting water from the pumping truck back into theinterceptor). The clean water will ensure that grease is trapped when you begin using the interceptor again after the pumping operation.
7. Always ask for a manifest or receipt from the pumping company for each interceptor cleaning. Keep copies of these available for City inspection, alongwith the cleaning log.
8. Limit unscheduled cleanings by using kitchen Best Management Practices (BMPs), as advised within this manual.



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Best Management Practices (BMP)

Do's

1. **DO** train new employees in BMP's including the proper disposal of FOG, and provide periodic training.
2. **DO** display appropriate "NO GREASE" signage inprominent work area location.
3. **DO** install screens on all work area drains with maximum 3/16" openings. Screens should be removable for cleaningand clean screens frequently.
4. **DO** provide a covered recycling container for cooking grease (yellow grease) and cooking oil. Utilize the service of a recycling company for disposal and maintain a disposal log.
5. **DO** scrape or dry-wipe excess grease from cooking pots, pans, and utensils then dispose in trash.
6. **DO** dispose of food waste by recycling or in solid wastedisposal.
7. **DO** maintain well-marked and accessible spill kits absorbent material for spills.
8. **DO** maintain floors and other work areas with access to building sewer drains and piping free of FOG.
9. **DO** call 406-727-8390 for additional BMP information.

Don'ts

1. **DON'T** put hot water with a temperature over 140 degreesFahrenheit down any drain that is connected to a grease trap or interceptor.
2. **DON'T** pour FOG (salad oils, butter, shortening, grease, cooking oil, soups, etc.) down your kitchen drains.
3. **DON'T** put enzymes or other additives directly into grease interceptor/trap in an attempt to reduce cleaning schedule.
4. **DON'T** overfill recycling containers
5. **DON'T** remove screens from drains
6. **DON'T** use water to spray down grease spills into anoutside drain.
7. **DON'T** clean greasy equipment outside.
8. **DON'T** dump mop water outside.

IT'S TIME TO FIGHT F.O.G.

Help keep Fats, Oils & Grease from clogging the sewer pipes!

CITY OF GREAT FALLS MONTANA

THE RIGHT WAY

Wipe dishes, pots, pans and cooking equipment before rinsing or washing.

Put food waste into food compost container or trash.

Collect waste oil and store in Tallow Bin for recycling. *Clean up spills immediately.*

Wash floor mats in a utility sink.

Keep screens in all drains to catch food waste.

THE WRONG WAY

Do not pour cooking residue into the drain.

Do not put food waste down the drain.

Do not pour cooking oil into the drain.

Do not wash floor mats outside.

Do not remove screens from drains.

Cleaning Maintenance interceptor/trap Log

Business Name:

Date	Maintenance Performed	Performed By	Initials