



Waterford Township Department of Public Works



Fats, Oil, and Grease (FOG)

Best Management Practices

Fat, Oil & Grease (FOG) BMP Program

Best Management Practice and Guidance Manual for Food Service Establishments prepared by the Waterford Department of Public Works for the control of fat, oil and grease (FOG) discharged to the sewer system by Food Service Establishments.

Introduction

Best management practices (BMPs) help facilities meet environmental regulations and prevent pollution. This best management practice contains guidelines to reduce the amount of fat, oil and grease (FOG) discharged to the Waterford Township sewer system. Our intent is to reduce the amount FOG introduced to the Township's sewer system and protect the public health and environment from hazards caused by sanitary sewer overflows.

The U.S. Environmental Protection Agency and the State of Michigan require local governments or utilities to protect their systems and the receiving streams from FOG-related problems.

Background

All food service establishments generate varying amounts of FOG. While fat, oil and grease are most commonly associated with fried foods, they are generated in significant quantities in all types of commercial food preparation:

- Cooking meats
- Mayonnaise and salad dressings
- Butter, ice cream and other dairy products
- Creams and sauces



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What's the Problem?

FOG coats pots, pans, utensils and equipment. When these materials are washed, FOG is rinsed into the sewer.

Sanitary sewer systems are not equipped to handle FOG. In the sewer, FOG coats the interior surface of the pipes. Over time, FOG accumulations restrict the flow of wastewater through the sewer. Eventually the FOG can clog the sewer pipes causing the sewage to back up and spill onto the ground, or into waterways, homes or buildings. This is called a sanitary sewer overflow (SSO), which endangers the public health and the environment.

FOG Regulations

Discharges of fat, oil and grease cause major problems in the sewer system. This informational page will help you use best management practices to minimize the amount of FOG entering the sewer system and treatment plants. Keeping FOG out of the sewer will help prevent a sewer backup in your facility or a sewer overflow on your street.

Fat, Oil and Grease Discharge Regulations

1. All discharges from Food Service Establishments must be in accordance with applicable state, local or federal rules and regulations.
2. All Food Service Establishments must have a properly sized and operational grease interceptor (large external device) or grease trap (smaller "under the sink" fixture).
3. Sizing and design of grease traps and interceptors must meet the criteria in the Michigan Building Code, Sections 1001-1004.
4. All FOG bearing drains must be plumbed to the interceptor.
5. All grease interceptors and traps must be maintained on a regular basis.



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Required Maintenance Practices

To prevent introduction of FOG to the Waterford Township sanitary sewer, grease interceptor devices must be maintained on a regular basis. Interceptors must have all FOG removed and hauled off site for proper disposal at a minimum frequency of once every 90 days unless otherwise determined by your service provider. Interior “under the sink” grease traps must have the entire contents removed and hauled offsite for proper disposal at a minimum frequency of once every 90 days unless otherwise determined by your service provider. It is recommended that these devices be maintained at a weekly frequency. This will help extend the life of these fixtures. Maintenance of interior grease traps can be performed by the Food Service Establishment as long as the trap contents are properly disposed.

FOG must be removed and hauled off site for proper disposal any time the volume of grease and solids fractions exceeds 25% of the interceptor’s or trap’s functional volume. At a minimum frequency of once per year all contents of grease interceptor must be removed and hauled off site. Grease interceptor devices must be inspected for proper functionality during each pump out event.

Kitchen Practices – strictly control the discharge of grease and solids to the interceptor. By reducing the amount of these substances discharged, a Food Service Establishment may be able to reduce the cost associated pump out frequency. This practice will also lead to decreased plumbing maintenance cost.

Fryer oil (yellow grease) must not be disposed of through the sanitary sewer. Yellow grease has re-use value and should be placed in a secured tank. You need to contract with a rendering service to haul the grease offsite for beneficial re-use.

Reduce the amount of food particles washed down the drain. Food particles take up volume in the grease interceptor, resulting in increased pump out frequency.

One way to reduce pump out frequency is to not use grinders or garbage disposal units. Ground food takes up volume in the grease interceptor, resulting in increased pump out frequency.



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Use rubber scrapers and paper towels to wipe off grease from pots, pans and ware into garbage cans before washing.

Clean up all grease spills with paper towels and dispose of in the garbage. Avoid washing straws, disposable gloves, paper towels or any other inappropriate materials down the drain.

Use a test kit provided by your grocery distributor to determine when to change the oil in fryers. This extends the life of both the fryer and the oil. Build-up of carbon deposits on the bottom of the fryer acts as an insulator that forces the fryer to heat longer thus causes the oil to break down sooner.

Develop a rotation system if multiple fryers are in use. Designate a single fryer for products that are particularly high in deposits, and change more often.

Documentation

All records of pump outs or interceptor maintenance must be maintained on site and available for City inspection for a minimum of three (3) years.

Training

- Train all kitchen staff in these best management practices and the environmental impacts of grease in the sewer system.
- Post Best Management Practices signs in kitchens and near sinks.
- Place yellow grease re-use bins in easy access areas for staff. Follow up to ensure staff properly disposes of grease.
- Provide constant re-enforcement on proper disposal of fat, oil, and grease with staff.

Interceptor Additives

Many vendors service grease interceptors with chemicals or microorganisms to remove FOG material. Known interceptor additives are:



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Emulsifiers, detergents, or caustic substances – these chemicals act to break up the grease and allow it to pass through the interceptor and into the sewer system where it can reform and cause blockages. These substances reduce the efficiency of the interceptor or trap and are prohibited for use as an additive.

Enzymes – have the same affect as emulsifiers and are therefore prohibited as additives.

Microorganisms – typically cultured bacteria are added to the interceptor. Ideally these bacteria digest the FOG converting it to innocuous substances. Microorganisms are allowed as an additive. However, since bacteria need an environment with specific requirements to proliferate, the effectiveness of these organisms in the environment of the interceptor is not known. The use of microorganisms does not relieve a FSE of the minimum pump out frequency requirements.

Guidance for Working with Grease Hauling Companies

Work closely with your hauling company to make sure your interceptor is serviced at the proper frequency and all required paperwork is completed. Be sure your hauler leaves a copy of each pump out report and any other interceptor maintenance documentation.

Review your pump out reports from haulers for accumulations of grease and solids. If amounts are nearing or exceeding 25% review kitchen practices to find areas in which improvements can be made to reduce the introduction of FOG and solids. If the pump out report indicates that the interceptor is in need of repair, contact hauler or plumber to have it serviced immediately.



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Conclusion

Food service establishments can have a significant impact on the environment. Through the use of a properly sized and functioning interceptor, suitable kitchen practices and regular maintenance of the interceptor, Food Service Establishments can reduce the amount of fats, oil and grease discharged to the sanitary sewer system.

By following the practices in this document, Food Service Establishments will be helping to reduce sanitary sewer overflows and protect our community's health and environment as well as reducing plumbing maintenance cost associated with the discharge of fat, oil and grease.

Questions can be directed to:

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