

Columbus, Indiana

Columbus City Utilities

Fats, Oils and Grease (FOG) Program

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Frequently Ask Questions about Fats, Oils and Grease

Where does FOG come from?

Does your facility cook meat, serve soups, sauces or salad dressing? Use butter, margarine or oil in food preparation? Fats, oils and grease (FOG) are abundant in and on the foods we eat. When foods are prepared, oils and greases are cooked out of the food or added as ingredients or non-stick remedies. The FOG ends up on cookware, dishware, kitchen equipment and floors. During the cleaning of the equipment and floors the FOG can enter the plumbing system, shortly after this occurs the FOG begins to cool and separate from the dishwater. After separation the FOG will begin to accumulate in the building piping system and the public sewers. It is no coincidence that plumbers are called frequently to restaurants to unclog blocked lines.

Why is FOG a Problem?

Sewer capacity reduction, increased maintenance cost, shortened infrastructure lifespan, sewer overflows and backups, odor and many other issues to the environment.

Most wastewater collection system blockages can be traced back to FOG as the cause. Blockages in the wastewater collection system are serious, causing sewage spills, manhole overflows and sewage backups in homes and businesses.

Large amounts of FOG in the wastewater causes decreased pipe capacity in the collection system resulting in increased maintenance cost and premature pipe replacement.

FOG also can cause treatment issues at the wastewater treatment plant. In a liquid form, does not appear harmful. But as the liquid cools the grease congeals and creates thick grease mats on tanks, piping and equipment causing treatment problem and higher maintenance costs.

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Fats, Oils and Grease (FOG) Best Management Practices (BMP) For Food Service Establishments

Keep FOG out of the Plumbing System		
BMP	Reason	Benefits to Restaurant
Train all employees about how they can ensure that BMPs are being implemented.	People are more willing to support an effort if they understand the reasons for it.	All the other benefits of BMPs will have a better chance of being implemented.
Post "NO GREASE" signs above sinks and on dishwashers.	Signs are a constant reminder for employees working in kitchens.	These signs should help minimize grease discharge to the grease removal devices.
Scrape and dry wipe pots and pans prior to washing.	This will keep the material out of the grease removal devices.	This will reduce the frequency of cleaning the grease removal devices and also reduce maintenance cost.
Dispose of food waste in trash, not down the sink.	Greasy food solids will not contribute to the grease removal device overload or plumbing blockages.	This will reduce the frequency of cleaning the grease removal devices and also reduce maintenance cost.
If possible, recycle waste cooking oil.	Look for waste oil recyclers new the Columbus area.	This will reduce cost and also reduce the amount of waste hauled to the landfill.

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Fats, Oils and Grease (FOG) Best Management Practices (BMP) For Food Service Establishments

Properly Maintain Grease Interceptors and Traps		
BMP	Reason	Benefits to Restaurant
<p>Supervise grease interceptor or trap cleaning and maintenance activities and document the device is operating properly.</p> <p>Clean under-sink grease traps weekly. If grease traps are more than 25% full when cleaned weekly, the cleaning frequency needs to be increased.</p> <p>Clean grease interceptors when the unit is 25% full of accumulated waste, both floatable and settleable, as measured from the tank bottom to the static water level. Grease interceptors must be cleaned at a minimum, every 90 days.</p> <p>Keep a log of grease trap and interceptor cleaning events.</p>	<p>Supervision during cleaning and maintenance activities will ensure that staff or contractors have not taken shortcuts during the cleaning process.</p> <p>If the establishment does not have a grease interceptor, the under-sink grease trap is the only means of preventing grease from entering the sewer system.</p> <p>Grease interceptors must be cleaned routinely to prevent interceptor failure. Cleaning frequency is determined by the size of the establishment, size of the interceptor and the amount of flow delivered to the interceptor.</p> <p>The log will serve as a maintenance record of a properly serviced grease trap or interceptor which is a requirement by the city.</p>	<p>Restaurant will be getting the best value for the cost of the cleaning the trap or interceptor.</p> <p>Proper maintenance of under-sink grease traps keeps grease out of building plumbing lines and prevents potential sewer backups.</p> <p>Routine cleaning will prevent plugging of the sewer line causing many problems for the establishment and the city sewer department.</p> <p>The maintenance record will help the establishment optimize their grease trap – interceptor cleaning program.</p>

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Fats, Oils and Grease (FOG) Best Management Practices (BMP) For Food Service Establishments

Prohibitions Related to the Discharge of FOG		
Do Not.....	Reason	
<p>Do not discharge fats, oils and grease in concentrations greater than 150ppm (mg/l) to the city sewer.</p>	<p>Grease can solidify and trap other solid particles to completely plug the wastewater collection system</p>	
<p>Do not discharge solid or viscous waste that could cause an obstruction to the flow in the wastewater collection system.</p>	<p>These materials in combination or alone can cause blockages and other maintenance problems to the sewer system.</p>	
<p>Do not discharge wastewater with a temperature of over 140 degrees any grease traps. This includes mechanical dishwashers that have a minimum required temperature of 160 degrees.</p>	<p>Temperatures in excess of 140 degrees will dissolve grease, but grease can re-congeal and cause blockages further down the sewer line as the wastewater cools.</p>	
<p>Do not connect food grinders to grease traps.</p>	<p>The food waste will greatly reduce the capacity of the grease trap for retaining grease and will</p>	

What is a grease trap and how does it work?

A grease trap is a small reservoir built into the wastewater piping a short distance from the grease producing area. Baffles in the reservoir retain the wastewater long enough for the grease to congeal and rise to the surface. These small devices need to be cleaned often, from daily to weekly and this is normally done by restaurant staff although some plumbing and septic hauling companies offer grease trap cleaning services.

What is a grease interceptor and how does it work

A grease interceptor is typically a concrete vault with a minimum capacity of 750 gallons. It is connected to the restaurant plumbing and is located below the ground and outside the building. The interceptor capacity allow for enough retention time for the suspended FOG to congeal and rise to the top. Periodically a service contractor will pump the accumulated grease and other food waste out of the receptor to maintain its efficiency.

Do I need a grease interceptor or trap?

YES! Facilities that prepare and serve food produce FOG and need a grease removal device. Grease interceptors are the preferred grease removal device of the Columbus City utilities for a number of reasons. They are larger providing more retention time for the grease to congeal and separate from the wastewater, some of these devices can accept discharge from dishwashing machines and food grinders. Grease interceptors are located outside and are less likely to create offensive odors inside the restaurant. They are cleaned by outside contractors every 30 to 90 days eliminating the need to depend on staff to maintain the device.

Indoor grease traps can be effective in certain applications, but must be maintained frequently and can't be connected to some common kitchen fixtures and equipment.

For example, grease traps cannot be connected to food grinders or dishwashing machines. Grease traps are appropriate for small, low volume restaurants with limited dishwashing and kitchen equipment.

What if I do not have a grease trap?

If you operate a non-residential facility that prepares and serves food, you need a grease removal system. Do not wait until you experience problems with block lines or sewer backups at your facility. You can contact the Columbus City Utilities to learn how to become compliant.

The Columbus City Utilities will work with your facility to ensure that you have installed the proper equipment and are using it efficiently. There may already be a grease trap or interceptor installed at your facility that you are not aware of. There are also some simple steps that can be done that will significantly reduce or eliminate FOG from entering your plumbing system.

What about inspecting the grease traps and interceptors?

There is a 25% standard rule for determining acceptable levels of waste that accumulate in your grease trap or interceptor. This means when the trap or interceptor has accumulated waste accounting for 25% of its wetted depth the device needs to be cleaned.

Businesses may find that preventing FOG from entering their plumbing systems and city sewers will save money, by reducing related plumbing problems.

Establishments that fail to comply with the Columbus City Utilities FOG management policy by discharging FOG to the city sewers could be required to install additional grease removal equipment or be fined for non-compliance.