

WHAT IS FOG?

Fats, oils and greases (FOG) are a material either liquid or solid, composed primarily of fat, oil and grease from animal or vegetable sources. Fats are mixtures of various triglycerides with a small percentage of monoglycerides and diglycerides. Oil is often defined as triglycerides that are liquid at room temperature. Grease is a general classification for fats, oils, waxes and soaps that have a negative effect on the wastewater treatment system. Examples of FOG include kitchen cooking grease, vegetable oil, bacon grease, etc.

WHERE DOES FOG COME FROM?

FOG is generated by everyone who prepares and cooks food. Some of the industries who generate FOG include meat processors, food packagers, restaurants, food preparation businesses, cafeterias in schools, churches, prisons and hospitals, and residential homeowners. Whenever food is cooked in oils there is a need to get rid of the cooking oils and greases.

HOW DOES FOG CAUSE A PROBLEM?

They are the same chemicals that clog arteries in people. In a wastewater system, the water flows from the sinks and toilets through pipelines to the wastewater treatment facility. These pipelines operate just like the arteries of our body, which transport blood and waste. They too will become clogged. When pipes become clogged, the water can no longer flow through them and it will back up into sinks, toilets, and other areas. They can also create sanitary sewer overflows (SSOs) at manholes, pump stations, and other areas within the collection system. These SSO's can result in serious pollution of our waterways and yards. In addition, the Environmental Protection Agency (EPA) and the South Carolina Department of Environmental Services (SCDES) frown on SSO's and they can result in municipalities, such as Easley Combined Utilities, being fined. The best way to prevent these overflows is to keep the FOG out of the sewer system.

WHAT IS EASLEY COMBINED UTILITIES (ECU) DOING ABOUT FOG?

ECU has developed a fats, oil and grease (FOG) program. This program requires all food service facilities to properly size, install, and maintain their grease traps and interceptors. A food service facility is a facility that prepares and/or packages food or beverages for sale or consumption, on and off site, with the exception of private residences. Food service facilities include, but are not limited to, food courts, food manufacturers, food packagers, restaurants, grocery stores, bakeries, lounges, hospitals, hotels, nursing homes, churches, prisons, schools and all other food service facilities not listed above.



WHAT CAN I DO ABOUT FOG?

There are a variety of DO's and DON'Ts that you should observe to ensure that the minimum amount of FOG gets into the wastewater system.

DO	BASIS
Scrape excess grease in a container and dispose of it in the trash or containers specifically designated for grease.	Grease should not be placed in the wastewater system. It can clog pipes, interfere with pumps and create sanitary sewer overflows that can have a detrimental effect on the environment and public health.
Place food scraps in waste containers or garbage bags for disposal with solid wastes, or start a compost pile; promote the use of scraping ware prior to washing.	Food does not belong in the wastewater system. Food adds to the grease content of the water.
Place a wastebasket in the bathroom to dispose of wastes. Disposable diapers, condoms, and personal hygiene products do not belong in the sewer system.	These items cannot be handled by the wastewater system.
Promote the use of the 3 "R's":	Using the three R's is the best way to be an environmentally friendly consumer.
Reduce. Reuse and Recycle.	

DO NOT	BASIS
Discharge fats, oil, and grease in concentrations that will cause an obstruction to the flow in a sewer, or pass through or interference at a wastewater treatment facility. FOG from cooking should not be placed in the kitchen or bathroom sinks or in the toilet.	Grease can solidify and trap other solid particles to completely plug the wastewater collection system. Resulting in back ups and creating sanitary sewer overflows that can affect the environment and present serious public health problems.
Discharge grease, improperly shredded garbage, animal guts or tissues, paunch manure, bones, hide, hair, fleshings, entrails, or food scraps.	These materials in combination or alone can cause blockages and other operations and maintenance problems in the wastewater collection and treatment system.
Discharge wastewater with temperatures in excess of 140 meters for the any grease traps. This includes water from mechanical dishwashers that have a minimum required temperature of 160 meters.	Temperatures in excess of 140° F will dissolve grease, but the grease can re-congeal and cause blockages further downstream in the sanitary sewer collection system as the water cools.
Discharge waste from a food waste disposal unit to any grease traps.	The food waste will greatly reduce the capacity of the grease trap for retaining grease and can cause worse problems with blockages.



IS GREASE A PROBLEM?

In the sewage collection and treatment business, the answer is an emphatic YES! Grease is singled out for special attention because of its poor solubility in water and its tendency to separate from the liquid solution.

Large amounts of oil and grease in the wastewater cause trouble in the collection system pipes. It decreases pipe capacity and, therefore, requires that piping systems be cleaned more often and/or some piping to be replaced sooner than otherwise expected. Oil and grease also hamper effective treatment at the wastewater treatment plant.

Grease in a warm liquid may not appear harmful. But, as the liquid cools, the grease or fat congeals and causes nauseous mats on the surface of settling tanks, digesters, in the wet wells of pumping stations, and the interior of pipes and other surfaces which may cause a shutdown of wastewater treatment units.

Problems caused by wastes from restaurants and other grease-producing establishments have served as the basis for ordinances and regulations governing the discharge of grease materials to the sanitary sewer system. This type of waste has forced the requirement of the installation of preliminary treatment facilities, commonly known as grease traps or interceptors.

WHAT IS A GREASE INTERCEPTOR OR GREASE TRAP?

An interceptor is a 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 until the interceptor is cleaned. The grease can then be removed and disposed of properly. There are three types of interceptors approved for use in the ECU collection system:

- Buried tank(s)
- Under sink and disposal bin(s)
- Mechanical unit(s)

The decision on which interceptor to use is dependent on the size and use of a facility. After evaluating these factors, ECU staff will determine the required configuration that must be installed and maintained.

IS MY GREASE INTERCEPTOR OF ADEQUATE SIZE?

Depending on the use and size of the facility, ECU will allow different forms of grease interceptors, including: buried gravity interceptors, under sink interceptors, and Hydro Mechanical interceptors. ECU will make the final determination regarding the type and size of the grease interceptor for each application.



the size of the buried interceptor shall be calculated using the following equations. The minimum size for all buried interceptors shall be 1,500 gallons. Volumes over 1,500 gallons shall be achieved by installing multiple interceptors in series.

Restaurants:

D x GL x (HR \div 2) = size in gallons (rounded up to nearest 500 gallons)

D = Seats in dining room

GL = Gallons of wastewater per meal (generally 3 gallons)

HR = Number of hours in operation

Hospitals, Nursing Homes, Other types of Commercial kitchens with varied seating capacity

M x GL x SC x 2.5 = size in gallons (rounded up to nearest 500 gallons)

M = Meals per day

GL = Gallons of wastewater per meal (generally 4.5)

SC = Storage capacity factor; minimum 1.7, onsite disposal = 2.5

For under the sink interceptors, the size shall be determined based on the anticipated flow rate from the sink. Multiple interceptors may be required for each fixture that discharges FOG laden wastewater, including dishwashers. If the facility is approved to use under sink interceptors, adequate storage must be provided on-site to regularly discard the grease and clean the interceptors.

ECU will also allow the use of Hydro Mechanical Grease Interceptors. Hydro Mechanical units must be approved by ECU before installation to ensure adequate capacity for the intended use. Hydro Mechanical units shall be sized based on Section 8.3 of the Plumbing and Drainage Institute (PDI) G 101. Typical approved manufacturers include Highland Tank, Schier Products, or approved equal.



GREASE INTERCEPTOR MAINTENANCE

The required maintenance frequency for grease interceptors depends greatly on the amount of FOG a facility generates as well as any best management practices (BMPs) that the establishment implements to reduce the FOG discharged into its sanitary sewer system. In many cases, an establishment that implements BMPs will realize financial benefit through a reduction in their required grease interceptor maintenance frequency.

At a minimum, the establishment is required to inspect the interceptor monthly and record on ECU's maintenance log. This log, along with any pumping manifests, shall be kept on the premises and made available to Easley Combined Utilities personnel. Each establishment shall maintain record for a minimum of three years.

CRITERIA FOR INSPECTING GREASE INTERCEPTOR

In accordance with the Easley Combined Utilities Sewer Use Regulations, it is the responsibility of the business to continually clean and maintain the grease interceptor. All food service establishments will be inspected by ECU personnel. The inspector will use the following criteria to inspect grease interceptors:

Percent of Trap Filled	Trap Condition
25	Good
25 – 50	Fair
>50	Poor

If the interceptor is in **FAIR** condition, the establishment shall be advised to monitor the maintenance schedule. The cleaning frequency may need to be increased. If the interceptor is in **POOR** condition, the establishment will be issued a Notice of Violation (N.O.V.) to have it cleaned immediately. As stated in the Sewer Use Ordinance, depending on the number and severity of the violation, monetary penalties may be incurred with violations. The establishment will then be required to contact the issuing authority within 30 days to verify that the grease interceptor has been properly cleaned.

EFFECTIVE DATE

Amended regulations adopted By Commission of Combined Utility System of Easley on August 11, 2025.



Customer Information Form

If your business processes, prepares or handles food or food products, you are required to operate and maintain a grease interceptor, sometimes referred to as a grease trap. The grease interceptor must conform to the "Standard Plumbing Codes". The grease interceptor must be of adequate size to handle the daily average water usage of the business. This will help prevent excessive discharge of fatty grease and oil to Easley Combined Utilities (ECU) sanitary sewer system. **Email completed customer information form to sbarnes@easleyutilities.com**

Note: Personnel from ECU may inspect the grease interceptor at any time to ensure proper maintenance.

Facility Name:	
Billing Address:	
	Telephone:
E-Mail:	
Number of Seats:	
Maximum daily h	ours in operation:
Indicate the num	ber of the following present at your facility:
Single Cor	and Sinks: mpartment Sinks: mpartment Sinks: ers:
Are there any ind	oor under the sink or mechanical grease interceptors?
If so, size and clea	aning frequency:



Where is indoor Grease Interceptor grease disposed?
Record Indoor Grease Interceptor maintenance on Grease Interceptor Log
Number of Outdoor Grease Interceptors: Volume (gallons):
Location of Grease Interceptor:
(Provide drawing or sketch indicating exact location)
Is pumping contracted?
Who does pumping and/or hauling?
Name and Address
How often is Interceptor pumped?
(Attach copy of receipt or manifest)
When pumped, is Interceptor cleaned completely?
Where is grease disposed?
Name and Address
Telephone:
Does the following flow through Grease Interceptor:
 Sanitary Waste (restrooms): Dishwasher water: Garbage Disposal: Kitchen Sinks:
Does Kitchen recycle all available oil products?
Recycling Company:
Address
Telephone:



Grease Interceptor Maintenance Log

Pumping Co	ntractor:				
Name and A	ddress:				
Telephone:		<u></u>			
Disposal Site	ə:				
Name and A	ddress				
Telephone:					
Date Inspected	Date Cleaned	Time Cleaned	Volume Pumped, gallons	Comments	Manager or Asst Manager Signature

Keep this record onsite and available for three (3) years. If there is a problem that may cause the release of oil or grease or if there is a release of oil or grease into the sewer system, contact ECU immediately. It is required that the grease interceptor(s) be inspected at least once per month to ensure proper operation.



Grease Interceptor Inspection

Inspector: _____

Establishment:_____

Signature:	Addre	SS:	
Date:	Conta	ct Person:	
ID #	Phone: _		
Inspection Criteria	Compliance	Comments	_
Training program implemented to ensure BMP's followed			
Are proper grease disposal signs posted in kitchen area			
Waste cooking oil recycled (Records provided)			_
Water temps at sinks < 140 ⁰			_
Are pots/pans dry wiped before rinsing/washing			
Is food waste disposed of down sinks			_
Grease trap/interceptor cleaned and maintained regularly			
Last date of cleaning			
Cleaning frequency documented on ECU maintenance log			
Does grease trap/interceptor contain >1/3 the depth in grease at top of tank			
Does grease trap/interceptor contain >1/4 the depth in sediment at bottom of tank			
Outdoor grease storage containers covered (any sign of overflow)			
Outdoor grease containers protected from discharge to storm drain			_
Tank Depth: Grease	Depth:	Sediment Depth:	

C = In Compliance **V** = Violation **NA** = Not Applicable **NC** = Not Checked