



City of
TEGA CAY, SOUTH CAROLINA

7725 Tega Cay Dr.
Tega Cay, SC 29708
(o) 548-3512 (f) 548-1400
www.tegacaysc.org

**Fats, Oil and Grease (FOG)
Best Management Practices (BMP's)**

HOW GREASE TRAPS AND INTERCEPTORS WORK

Every business that disposes of FOG (restaurants, grocery stores, meat markets, hotels, factory and office building cafeterias, public and private schools, hospitals, nursing homes, commercial day care centers, churches, and catering services) should have a grease trap or interceptor to prevent these materials from entering and clogging sewer lines. Grease traps are typically indoor fixtures located under or near the sink. A grease interceptor is much larger and is usually located in a vault outside of the premises. Both traps and interceptors work under the same principle. Grease traps and interceptors work by separating the grease and oils from wastewater. Greasy wastewater entering the trap passes through a vented flow control fitting that regulates the flow of the wastewater. The wastewater then passes over a series of separator baffles, or regulating devices within the trap, that separate fats, oil and grease. The FOG then floats to the top of the trap and accumulates until it is manually removed. Solids accumulate at the bottom of the trap and must also be manually removed. The wastewater continues to flow through the trap into a discharge pipe, and from there to the City's sewer system.

MAINTAINING YOUR GREASE TRAP

Grease traps should be cleaned on a regular basis. This is a simple procedure that can take as little as five minutes. Grease traps can be cleaned by in-house staff or by a licensed grease hauler or recycler. Grease traps shall be inspected and maintained by **Food Service Establishment (FSE)** staff on a weekly basis until sufficient data logs of the inspections indicate a lower frequency is warranted. If grease traps are more than 25% full of grease and solids when cleaned weekly, the cleaning frequency must be increased. Management should witness or inspect the cleaning to ensure it is done properly.

1. No use of enzymes, acids, caustics, solvents or emulsifying products when cleaning or maintaining the grease traps.
2. Make sure that all flow is stopped to the trap by shutting the isolation valve located in the inlet piping to the trap.
3. Remove the cover of the trap and scoop out any fats, oil and grease that has collected on top. Deposit the fats, oil and grease in a grease recycling container. Most FOG can be recycled, and should be collected by a fat renderer or other grease recycling company.
4. Bail out the water remaining in the trap to facilitate cleaning, discharging it to the sanitary sewer system.
5. Remove baffles if possible.



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6. Scrape the sides, the lid and the baffles with a putty knife to remove as much of the FOG as possible and deposit it in a grease recycling container.
7. Remove all solids from the grease trap and dispose of in a leak proof container.
8. Replace the baffle and lid.
9. Reuse gasket or replace gasket if needed.
10. Record the volume of grease removed on the maintenance log.
11. The City of Tega Cay's F.O.G. Control Policy requires Food Service Establishments (FSE's) to keep a maintenance log. Keep it up to date and readily accessible. This serves as a record of the cleaning frequency and can help the establishment manager optimize cleaning frequency to reduce costs.

If the trap is not cleaned frequently or correctly it will not perform properly and could put your establishment at risk of violating the City's Sewer Use Ordinance, which could lead to enforcement and fines.

BACTERIAL AND ENZYME PRODUCTS

Manufacturers of bacterial additives claim that their products break down grease and enhance the performance of grease traps and interceptors. Such additives cannot be substituted for a grease trap or interceptor, nor should they reduce your frequency of regular maintenance and inspection. It is important to note that high temperature, high or low pH levels, sanitizers and other cleaning products can render them ineffective. In addition these products can emulsify FOG, which simply keeps grease and oil in suspension and allows it to flow to the sewer system where it can resolidify. The use of biological or other additives as a grease degradation or conditioning agent is permissible only upon prior written approval of the Grease Management Program (GMP) official. Any FSE using biological or other additives shall maintain the trap or interceptor in such a manner that attainment of any grease wastewater, action level, solids blanket or grease cap criteria, goal or directive, as measured from the grease interceptor outlet or interior, is consistently achieved. **Material Safety Data Sheets (MSDS)** and any other applicable information concerning the composition, frequency of use and mode of action of the proposed additive shall be sent to the City together with a written statement outlining the proposed use of the additive(s). Permission to use any specific additive may be withdrawn by the City at any time. Flushing a grease interceptor or grease trap with hot water, or the use of chemicals or other agents to dissolve or emulsify grease and allow it to flow into the wastewater treatment system, is a violation of the City's Sewer Use Ordinance.

MAINTAINING YOUR GREASE INTERCEPTOR

A grease interceptor is a device located underground and outside of a FSE designed to collect, contain or remove food wastes and grease from the waste stream while allowing the balance of the liquid waste to discharge to the wastewater collection system by



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gravity. Interceptors shall be in conformance with the provisions of the South Carolina Plumbing Code. A licensed grease hauler or recycler should perform grease interceptor maintenance. The interceptor vaults require special training and equipment. It is very important that a restaurant representative be present during any cleaning, pumping, or skimming performed by a contractor to ensure that no shortcuts are taken.

The minimum services should include:

1. Complete pumping and cleaning of the interceptor and sample box, not just skimming the grease layer.
2. Deodorizing and thorough cleaning of affected areas, as necessary.
3. Disposal or reclamation of grease and oil at an approved location.
4. Refilling the vault with clean water, not with water already pumped out.

Each FSE shall have its grease interceptor(s) pumped at a minimum frequency of once every 30 days. In addition to required monthly pumping, each FSE shall determine an additional frequency at which its grease interceptor(s) shall be pumped according to the following criteria:

1. When the floatable grease layer exceeds six inches in depth as measured by an approved dipping method, or;
2. When the settleable solids layer exceeds eight inches in depth as measured by an approved dipping method, or;
3. When the total volume of captured grease and solid material displaces more than 25 percent of the capacity of the interceptor as calculated using an approved dipping method, or;
4. When the interceptor is not retaining/capturing oils and greases.

Each FSE shall be responsible for the costs of installing, inspecting, pumping, cleaning, and maintaining its grease interceptor. Since the FSE is liable for the condition of their pretreatment devices they may want to witness all cleaning/maintenance activities to verify that the grease interceptor is being fully cleaned and properly maintained. All FSE's that have grease interceptors shall utilize a grease hauler who has been permitted by the City for pumping services. Pumping services shall include the initial complete removal of all contents, including floating materials, wastewater, and bottom sludges and solids from the interceptor.

The following are the pumping practices required of registered waste haulers:

Step 1. Record reading using appropriate dipping method (sludge judge reading, etc.).

Step 2. Skim the entire grease cap and debris from the top of the Grease Interceptor. The interceptor may need to be agitated slightly to loosen the grease cap.



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- Step 3.** Place the vacuum tube all the way into the Grease Interceptor to withdraw remaining solids from the bottom.
- Step 4.** Vacuum water out of the Grease Interceptor.
- Step 5.** Clean the sides and bottom of the Grease Interceptor. This may be done by “back flowing” the water from the pump truck or by using a alternative water source to hose down the interceptor. Make sure the Grease Interceptor is completely clean.
- Step 6.** Vacuum the remaining water out of the Grease Interceptor.
- Step 7.** Check that the sanitary “Teas” on the inlet and outlet sides of the Grease Interceptor are not clogged, loose, or missing.
- Step 8.** Verify that the baffle is secure and in place.
- Step 9.** Inspect the Grease Interceptor for any cracks or other defects.
- Step 10.** Allow FSE contact to inspect the cleaning for their approval.
- Step 11.** Check that lids are securely and properly seated after completion of pumping.
- Step 12.** Provide a copy of the waste hauler manifest to the FSE

If the interceptor is not cleaned frequently or correctly, it will not perform properly. This could put your establishment at risk of violating the City’s Sewer Use ordinance, which could lead to enforcement and fines.

Careful recordkeeping is one the best ways to ensure that your grease interceptor is being cleaned and maintained on a regular basis.

FOG PREVENTION AND CLEANUP

Remove food waste with “dry” cleanup methods such as scraping, wiping, or sweeping before using “wet” methods that use water. Wet methods typically wash the water and waste materials into the drains where they eventually collect on the interior walls of the drainage pipes. Do not pour FOG down the drain and do not use the sinks to dispose of food scraps.



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To practice dry cleanup:

1. Use rubber scrapers to remove FOG from cookware, utensils, chafing dishes and serving ware.
2. Use absorbent material to soak up oil and grease under fryer baskets.
3. Use paper towels to wipe down work areas. Cloth towels will accumulate grease and oil that will eventually end up in your drains from towel washing and rinsing.
4. Keep water temperature at or below 140 ° F when using “wet” clean up techniques.
5. Post “NO GREASE” signs at appropriate locations.

SPILL CLEANUP PLAN

Each establishment should have a spill cleanup plan that includes:

1. Procedures for different types of spills.
2. Schedule of training and refreshing employees about the procedures.
3. Cleanup kits in well marked, accessible locations.
4. Designation of a key employee who monitors cleanup.
5. A printed plan posted in the work area.

EXHAUST HOOD FILTERS & FLOOR MATS

FOG accumulates in exhaust hood filters and deposits on the roof. When it rains, runoff from the roof flows into the sanitary sewers and storm drains. Exhaust hood filters should be cleaned on a regular basis. Again, the rule of thumb is to clean when there is excessive FOG buildup. If the filters are cleaned on the premises, make sure the runoff from the filters flows through the grease trap or interceptor. Most facilities will contract with a service company to professionally clean large filters. For hoods to operate properly in the removal of grease-laden vapors, the ventilation system will also need to be balanced with sufficient makeup air. When possible, floor mats should be cleaned inside the premises inside a mop sink connected to a grease trap or interceptor. When cleaning outside, runoff should be directed to the sanitary sewer and away from storm drains.

FOG RECYCLING AND HAULING

There are two types of FOG generated by a restaurant or other food service establishment:

- “**Yellow grease**” is a type of grease that can be recycled. It is generated from pots, pans, grills, and deep fat fryers and comes from butter, lard, vegetable fats and oils, meats, nuts, and cereals. Rendering facilities take this grease and



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recycle it for use as animal feed additives, in soap production, oils, cosmetics and skin care products, and in composting.

- **“Brown grease”** is the kind of grease collected in a grease trap or interceptor. It is not recyclable and must be disposed of only at landfills that accept this type of waste, or at some other facility designed to handle it. Only licensed haulers and recyclers should clean grease interceptors. Recyclers and haulers usually provide storage containers to store oil and grease on the premises before it is picked up for hauling.

The following Best Management Practices (BMP's) provide guidance on the storage of fats, oil and grease:

1. Cover outdoor grease and oil storage containers. Uncovered grease and oil storage containers can collect rainwater and overflow.
2. Place grease and oil storage containers away from storm drains and catch basins.
3. Use absorbent pads or other material to create a berm to catch grease and oil if containers must be located near a storm drain or catch basin. Avoid using free flowing materials such as kitty litter or saw dust.
4. Have a spill prevention plan in place. Empty containers before they are full to avoid spills. Use a cover to transport grease trap and interceptor contents to a grease storage container. Provide employees with the proper equipment (ladles, containers, etc.) to transport materials without spilling.

QUESTIONS TO ASK A RENDERER OR HAULER

1. Do you provide collection containers?
2. Are you licensed and permitted with Rock Hill?
3. Do you collect sludge judge readings?
4. What are your specifications? What constitutes contamination?
5. If there is a problem, who should I contact?
6. Can I expect revenue for my material? If not, what is your service fee?

Employee Training in the Best Management Practices (BMP's) discussed earlier is an essential part in controlling and reducing the amount of FOG a restaurant generates. High employee turnover in the food industry makes regular training even more important.

- Discuss good BMP's with all employees at least quarterly.
- Systematically inform new employees about these BMP's.
- Post cleanup guidelines and the name of each shift's designated spill cleanup monitor in a visible location.
- Post “NO GREASE” signs at appropriate locations.