Fats, Oils and Grease Control Manual

JULY 2015

City of Seal Beach

Department of Public Works

Table of Contents

List of Acronyms

BMP	**Best Management Practices**
CSA	**Compliance Schedule Agreement**
EPA	**Environment Protection Agency**
FOG	**Fats, Oils, and Grease**
FSE	**Food Service Establishment**
GI	**Grease Interceptor**
GGI	**Gravity Grease Interceptor**
HGI	**Hydromechanical Grease Interceptors**
O&G	**Oils and Grease (a.k.a. fats, oils, and grease)**
SSO	**Sanitary Sewer Overspill (a.k.a. sewer overflows, sewer spills)**
SWRCB	**California State Water Resource Control Board**
RWQCB	**Regional Water Quality Control Board**
UPC	**Uniform Plumbing Code**

Definition of Terms

"*Best Management Practices"*: schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the introduction of FOG to the sewer facilities.

"*Director*": the Director of the Department of Public Works, the City Engineer.

"*Discharger*": any person who discharges or causes a discharge of wastewater directly or indirectly to the sewer facilities. Discharger shall have the same meaning as User.

"*Fats, Oils, and Grease* ("*FOG*")": any substance, such as a vegetable, animal or other product that is used in, or is a by product of, the cooking or food preparation process, and that turns or may turn viscous or solidifies with a change in temperature or other conditions.

"*FOG Control Program*": the FOG Control Program required by and developed pursuant to Section (c)(12)(viii) of the Sewer WDRs.

"*FOG Discharge Manual*": the "Fats, Oils and Grease Discharge Manual", setting forth BMPs for FSE's, as approved by the Director.

"*FOG Wastewater Discharge Permit*" or *"Discharge Permit"*: a permit issued by the City subject to the requirements and conditions established by the City authorizing the Permittee or discharger to discharge wastewater into the City's facilities or into sewer facilities or which ultimately discharge into such a facility.

"*Food Grinder*": any device installed in the plumbing of a facility or sewage system for the purpose of grinding food waste or food preparation by products for the purpose of disposing it in the sewer system.

"*Food Service Establishment* ("*FSE*")": Facilities defined in California Uniform Retail Food Facility Law (CURFFL) Health & Safety Code § 113785, and any commercial or public entity within the boundaries of the City, operating in a permanently constructed structure such as a room, building, or place, or portion thereof, maintained, used, or operated for the purpose of storing, preparing, serving, or manufacturing, packaging, or otherwise handling food for sale to other entities, or for consumption by the public, its members or employees, and which has any process or device that uses or produces FOG, or grease vapors, steam, fumes, smoke or odors that are required to be removed by a Type I or Type II hood, as defined in CURFFL. A limited food preparation establishment is not considered a FSE when engaged only in reheating, hot holding or assembly of ready to eat food products and as a result, there is no wastewater discharge containing a significant amount of FOG. A limited

food preparation establishment does not include any operation that changes the form, flavor, or consistency of food.

"*Grab Sample*": a sample taken from a waste stream on a one-time basis without regard to the flow in the waste stream and without consideration of time.

"*Grease Control Device*": any grease interceptor, grease trap or other mechanism, device, or process, which attaches to, or is applied to, wastewater plumbing fixtures and lines, the purpose of which is to trap or collect or treat FOG prior to it being discharged into the sewer system. A grease control device may also include any other proven method to reduce FOG subject to the approval of the Director.

"*Grease Disposal Mitigation Fee*": a fee charged to an Owner/Operator of a FSE, as provided in this Chapter, when there are physical limitations to the property that make the installation of the usual and customary grease interceptor or grease control device for the FSE under consideration impossible.

"*Grease Interceptor*": a multi-compartment device that is constructed in different sizes and is generally required to be located, according to the California Plumbing Code, underground between a FSE and the connection to the sewer system. These devices primarily use gravity to separate FOG from the wastewater as it moves from one compartment to the next.

"Gravity *Grease Interceptor*": a multi-compartment device that is constructed in different sizes, 500+ Gallons, and is required to be located, according to the California Plumbing Code, underground between a FSE and the connection to the sewer system. These devices use gravity to separate FOG from the wastewater as it moves from one compartment to the next. These devices must be pumped periodically by an outside source to remove accumulated FOG and food solids. They shall be pumped to allow no more than 25% of the allowable volume of the device is compromised by FOG and food solids.

"Hydromechanical *Grease Interceptor*": a device that is constructed in different sizes and is generally required to be located, according to the California Plumbing Code, underground before the connection to the sewer system. These devices can be installed inside the FSE footprint or outside the restaurant. They are generally rated in GPM and/or lbs of FOG retained. These devices must be cleaned periodically and ventilated. They shall be cleaned to allow no more than 25% of the allowable volume of the device is compromised by FOG and foot solids.

"*Grease Trap*": a grease control device that is used to serve individual fixtures and have limited effect and should only be used in those cases where the use of a grease interceptor or other grease control device is determined to be impossible.

"*Inspector*": a person authorized by the City to inspect any existing or proposed wastewater generation, conveyance, processing, and disposal facilities.

"*Interference*": any discharge which, alone or in conjunction with discharges from other sources, inhibits or disrupts the City's sewer system, treatment processes or operations; or is a cause of violation of the City's NPDES or Waste Discharge Requirements.

"*Local Sewering Agency*": any public agency or private entity responsible for the collection and disposal of wastewater to the City's sewer facilities duly authorized under the laws of the State of California to construct and/or maintain public sewers.

"*Major Operational Change*": a physical change or operational change causing generation of the amount of FOG that exceed the current amount of FOG discharge to the sewer system by the FSE in an amount that alone or collectively causes or create a potential for SSOs to occur.

"*New Construction*": any structure planned or under construction for which a sewer connection permit has not been issued.

"*Permittee*": a person who has received a discharge permit to discharge wastewater into the City's sewer facilities subject to the requirements and conditions established by the City.

"*Public Agency*": the State of California and/or any city, county, special district, other local governmental authority or public body of or within this State.

"*Public Sewer*": a sewer owned and operated by the City, or other local Public Agency, which is tributary to the City's sewer facilities.

"*Regulatory Agency*": regulatory agency or regulatory agencies shall mean those agencies having regulatory jurisdiction over the operations of the city, including, but not limited to:

> United States Environmental Protection Agency, Region IX, San Francisco and Washington, DC (EPA).
>
> California State Water Resources Control Board (SWRCB).

California Regional Water Quality Control Board, Santa Ana Region (Santa Ana RWQCB).

South Coast Air Quality Management District (SCAQMD).

California Department of Health Services (DOHS).

Any Public Agency.

"*Sewage*": wastewater.

"*Sewer Facilities or System* ": any and all facilities used for collecting, conveying, pumping, treating, and disposing of wastewater and sludge operated by the City, including the Public Sewer.

"*Sewer Lateral*": a building sewer as defined in the latest edition of the California Plumbing Code. It is the wastewater connection between the building's wastewater facilities and a public sewer system.

"*Sewer WDRs*": the "General Waste Discharge Requirements for Sewer Collection Agencies in Orange County Within the Santa Ana Region,"

(Order No. R8-2002-0014), dated April 26, 2002, adopted by the Santa Ana RWQCB, and any successor permit to such WDRs.

"*Sludge*": any solid, semi-solid or liquid decant, subnate or supernate from a manufacturing process, utility service, or pretreatment facility.

"*User*": any person who discharges or causes a discharge of wastewater directly or indirectly to a public sewer system. User shall mean the same as Discharger.

"*Waste*": sewage and any and all other waste substances, liquid, solid, gaseous or radioactive, associated with human habitation or of human or animal nature, including such wastes placed within containers of whatever nature prior to and for the purpose of disposal.

"*Wastewater*": the liquid and water-carried wastes of the community and all constituents thereof, whether treated or untreated, discharged into or permitted to enter a public sewer.

"*Wastewater Constituents and Characteristics*": the individual chemical, physical, bacteriological, and other parameters, including volume and flow rate and such other parameters that serve to define, classify or measure the quality and quantity of wastewater.

"*Water Minimization Practices*": plans or programs intended to reduce or eliminate discharges to the sewer system or to conserve water, including,

but not limited to, product substitutions, housekeeping practices, inventory control, employee education, and other steps as necessary to minimize wastewater produced.

Forward

Studies in Orange County have concluded that FOG is one of the primary causes of sanitary sewer blockages. Based on information collected by the Santa Ana RWQCB, sanitary sewer system overflows ("SSOs") within Orange County from sewer collection systems have caused numerous beach closures, and the most prevalent cause of the SSOs is FOG accumulation in the small to medium sewer lines serving FSE's.

The current edition of the Uniform Plumbing Code requires FSE's that have the potential to produce a significant amount of FOG to have grease control devices. Many FSE's, such as restaurants within the City do not have grease control devices. These commercial FSE's have the potential to require the City and sanitation districts to perform additional preventive maintenance on sewer lines that service these facilities, as well as respond to and cleanup blockages and sewage overflows caused by improper FOG disposal practices and grease control device maintenance.

The purpose of the FOG Discharge Manual is to facilitate the maximum beneficial public use of the City's sanitary sewer collection system while preventing blockages of sewer lines resulting from discharges of FOG to the system, and to specify appropriate FOG discharge requirements for FSE's discharging into the City's sewer system to protect the public health and safety. The sections of this manual shall apply to the direct or indirect discharge of all wastewater or waste containing FOG into City's sanitary sewer collection system.

In order to manage and control, in a cost-effective manner, the discharge of FOG into the City's sanitary sewer collection system to the maximum extent practicable, it is also essential to establish a FOG program for the disposal of FOG and other insoluble waste discharges from FSE's into the City's sewer system. Compliance requirements shall also be made to allow the City to meet applicable policies at the Federal and State level.

Certain FSE's within the boundaries of the City do not discharge wastewater into the City's sewer system. These facilities discharge into sewer systems operated by Regulatory Agencies and sanitation districts other than the City. Such FSE's will be permitted and regulated by Regulatory Agencies other than the City. In order to avoid the possibility of overlapping and potentially contradictory regulation of such FSE's, this Chapter is not intended to apply to FSE's or other dischargers, which do not discharge into the City's sanitary sewer system.

This manual shall also establish quantity and quality standards on all wastewater and/or waste discharges containing FOG, which may alone or collectively cause or contribute to FOG accumulation in the sewer facilities causing or potentially causing or contributing to the occurrence of SSOs

Introduction

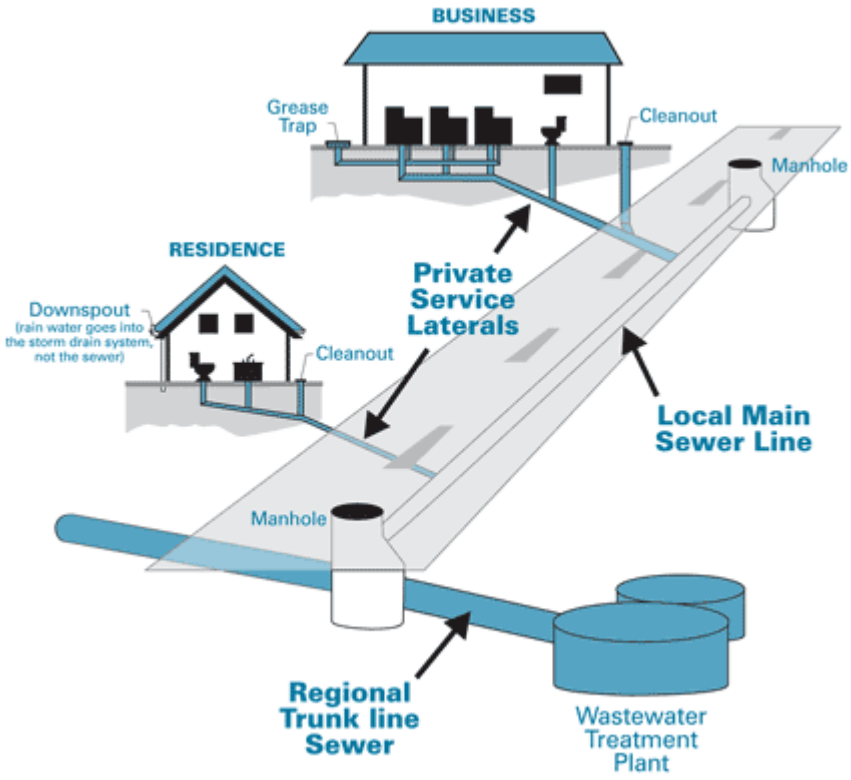
What is FOG? Where does it come from?

“FOG” refers to fats, oils and grease, which are commonly found in such things as meats, sauces, gravy, dressings, deep-fried foods, baked goods, cheeses, butter and others.

Residential users and many different businesses generate FOG wastes by processing or serving food, including; eating and drinking establishments, caterers, hospitals, nursing homes, day care centers, schools and grocery stores.

What's the problem with FOG?

Grease is often washed into the plumbing system, usually through the kitchen sink. Grease sticks to the insides of sewer pipes (both on your property and in the streets) and over time, the grease can build up and block the entire pipe.



Typical sewer system diagram

When sewer pipelines become blocked with grease, sewage flows out of maintenance (manholes) locations and into the storm drains. The water in storm drains flows into the river channels and eventually makes its way into the ocean. Sewer overflows pose a threat to public health, adversely affect aquatic life, and are expensive to clean up.

Why do food facilities need to know about FOG?

The 2000-2001 Orange County Grand Jury conducted an investigation among the 35-sewer collection and treatment agencies in Orange County. It found that an accumulation of fats, oils, and grease discharged from restaurants is the leading cause of sanitary sewer overflows.

In February 2002, the Santa Ana Regional Water Quality Control Board adopted Order R8-2002-0014, which prohibits sewer overflows and requires Orange County cities to monitor and control these overflows. Cities are also required to develop and implement a FOG Control Program. The program will require restaurants and food preparation facilities to follow but not be limited to implementing kitchen BMPs, consider installing a grease interceptor, develop a grease control plan, produce waste-hauling records, and/or share the costs incurred by the City to clean-out blockages in the sewer line.

How is FOG monitored? How is it enforced?

The City of Seal Beach maintains a record of maps of the entire sewer collection systems in the city and uses CCTV cameras to identify blockages caused by FOG wastes. The City of Seal Beach can use this information to identify the sources that are contributing to the sewer blockages, and can initiate enforcement actions against businesses to insure compliance with the State and City laws. As mentioned previously, physical damage can occur when sewer overflows of raw sewage backs up into a residence or business, as a result of sewer pipes blocked by FOG wastes. When the City of Seal Beach initiates enforcement actions for sewer system blockages, those responsible can be liable for:

- Physical/monetary damages caused to others
- Costs incurred by City of Seal Beach to respond to the blockage
- Fines and penalties

How to report Sewage Spills

Any persons or businesses affected by a sewer collection system blockage or overflow can contact City of Seal Beach at 562-431-2527 ext.1317 to file a complaint. Contact the Police Department after hours to report spills and do not leave a message.

Section I: Legal Requirements

Codes, Fines, and Contact Information

Allowing sewage to discharge to a gutter or storm drain may subject FSE's to penalties and/or out-of-pocket costs to reimburse cities or public agencies for clean-up efforts. Here are the pertinent codes, fines, and agency contact information that apply.

City of Seal Beach Department of Public Works
(562) 431-2527 ext.1317
City of Seal Beach Municipal Code, Chapter 9.25

- Contact the Police Department after hours to report spills.
  DO NOT LEAVE A MESSAGE
- "No FSE shall discharge or cause to be discharged into the sewer system FOG that exceeds a concentration level adopted by a Regulatory Agency or that may accumulate and/or cause or contribute to blockages in the sewer system or at the sewer system lateral which connects the FSE to the sewer system."

Orange County Stormwater Program
24-Hour Water Pollution Reporting Hotline
(714) 567-6363

- County and city water quality ordinances prohibit discharges containing pollutants.

Orange County Health Care Agency
Environmental Health
(714) 667-3600
California Health and Safety Code, Sections 5410-5416

- No person shall discharge raw or treated sewage or other waste in a manner that results in contamination, pollution, or a nuisance.
- Any person who causes or permits a sewage discharge to any state waters:
  - must immediately notify the local health agency of the discharge.
  - shall reimburse the local health agency for services that protect • the public's health and safety (water-contact receiving waters).
  - who fails to provide the required notice to the local health agency is guilty of a misdemeanor and shall be punished by a fine (between $500–$1,000) and/or imprisonment for less than one year.

Regional Water Quality Control Board
Santa Ana Region (909) 782-4130
San Diego Region (858) 467-2952

- Requires the prevention, mitigation, response to and reporting of sewage spills.

California Office of Emergency Services
(800) 852-7550
California Water Code, Article 4, Chapter 4, Sections 13268-13271
California Code of Regulations, Title 23, Division 3, Chapter 9.2, Article 2, Sections 2250-2260

- Any person who causes or permits sewage in excess of 1,000 gallons to be discharged to state waters shall immediately notify the Office of Emergency Services.
- Any person who fails to provide the notice required by this section is guilty of a misdemeanor and shall be punished by a fine (less than $20,000) and/or imprisonment for not more than one year.

Orange County Agency Responsibilities

- **City Sewer/Public Works Departments—**
  Responsible for protecting city property and streets, the local storm drain system, sewage collection system and other public areas.
- **Public Sewer/Sanitation District—**
  Responsible for collecting, treating, and disposing of wastewater.
- **County of Orange Health Care Agency—**
  Responsible for protecting public health by closing ocean/bay waters and may close food-service businesses if a spill poses a threat to public health.
- **Regional Water Quality Control Boards—**
  Responsible for protecting State waters.
- **Orange County Stormwater Program—**
  Responsible for preventing harmful pollutants from being discharged or washed by stormwater runoff into the municipal stormdrain system, creeks, bays and the ocean.

Section II: Basic Requirements of the FOG Program

Kitchen Best Management Practices

This manual provides guidance and recommendations for all FSE's provided wastewater services by the City of Seal Beach to conform to BMPs to control FOG wastes. BMPs are practices, procedures, and maintenance activities performed by FSE's to reduce the FOG in the Wastewater discharge. BMPs are described in greater detail in the section of this manual titled "Kitchen Best Management Practices." FSE's causing or contributing to wastewater system blockages will be required to conform to BMPs.

The legal authority for requiring conformance to BMPs is contained in City Code § 9.25.030

Record keeping and Reporting Requirement

This manual provides a sample record-keeping report that FSE's shall use to document cleaning and inspection of grease control devices. Examples of this report are contained in the Appendix of this manual. FSE's will be required to file such reports. If there are multiple establishments discharging to an obstructed pipeline it will be assumed that those establishments not following BMPs, contributed to the sanitary sewer overflow.

The legal authority for requiring FSE's to complete and submit a report is contained in City Code § 9.25.110.

Compliance Schedule Agreement (CSA)

FSE's may be required to enter into a compliance service agreement . Criteria to require FSE's to enter into a CSA may include, but are not necessarily limited to, conditions in the wastewater collection line serving the FSE's; the degree of conformance to BMPs by the FSE; and the compliance history of the FSE at that location or other locations (has the establishment caused or contributed to wastewater system blockages). A CSA would include, but not be limited to include: BMPs used by the establishment (e.g., procedures to prevent discharges of waste fat, oils and grease, waste FOG handling, storage, and disposal procedures); a description of the FSE operation; a description of the location and size of any Grease Interceptors and Grease Traps present; a description of how the Grease Interceptor or Grease Trap will be maintained (cleaned), including frequency of cleaning; and a description of how the FSE will comply with reporting requirements.

The legal authority for requiring FSE's to enter into a CSA is contained in City Code § 9.25.140.

Grease Interceptors

There are Uniform Plumbing Code requirements and Standards and Specifications for FSE's to install Grease Interceptors and Grease Traps to reduce FOG in the Wastewater discharges. These requirements are discussed in the section of this manual titled "Grease Interceptor."

The criteria for requiring the installation of a grease interceptor at an existing FSE include frequency of noncompliance, the severity of the noncompliance (damages/complaints), and good faith efforts of the user to follow BMPs to control FOG. **Refer to the section under "Variances and Waivers" and "Permit Requirements" for more details.**

The legal authority to require the installation of a grease interceptor by FSE's is contained in City Code § 9.25.035.

FOG Wastewater Discharge Permit

Any FSE proposing to discharge wastewater containing FOG into the City's sewer system is required to obtain a FOG Wastewater Discharge Permit from the City when applying for or renewing its annual business license. Compliance will be required before the permit is issued. The City can refuse to issue a certificate of occupancy for any new construction or occupancy unless a FSE has complied with the ordinance (**§ 9.25.060 C).**

Section III: KITCHEN BEST MANAGEMENT PRACTICES

Description and Applicability

BMPs are procedures and practices that reduce the discharge of FOG to the building drain system and to the wastewater system. BMPs can be implemented effectively in FSE's. Existing establishments shall use BMPs to control FOG in the discharge and to prevent obstructions to the flow in sewer pipes.

Food Service Establishments (FSE)

The following BMPs are provided to assist FSE's with development of procedures and/or practices to reduce the amount of FOG in their wastewater discharge. Implementation of BMPs has the added benefit of reducing FOG and solids accumulation in Grease Traps and Grease Interceptors, thereby reducing the maintenance needs and costs of these control devices. These efforts can also minimize the likelihood that an establishment will cause a Wastewater System blockage that results in a backup into their facility or their neighbors' homes or businesses, a release to the environment, and/or an enforcement action. Implementation of BMPs can also help reduce a FSE's maintenance needs and costs for building Service Line cleaning.

Because of the variety of establishments that generate FOG, every BMP described in this manual may not apply to every establishment. It is recommended that FSE operators identify the FOG sources at their establishment and adopt BMPs to fit the establishment's needs. Operators are encouraged to contact the City's FOG Control Program (562.431.2527 ext.1317), if assistance with BMPs selection is desired.

Employee Training and Awareness

The success of a FSE's BMPs program is largely dependent upon employees. To promote effective employee implementation:

- Train employees on the BMPs that have been adopted for their establishment. All FSE's should instruct employees not to pour FOG down the drain and not to use the sinks to dispose of food scraps.

- Use the Public Education Materials and opportunities described in this manual (See Table of Contents).

- Post "No Grease" signs above sinks and on the front of dishwashers. Signs should be written in the language(s) that is commonly spoken by employees.

Garbage Disposals and Drain Screening

Excluding food particles from the Wastewater System can eliminate a large amount of FOG from a FSE's discharge. To practice this:

- Disconnect or minimize the use of garbage disposals and use "dry" clean-up methods (described below). Operators can reduce FOG discharge by up to 50 percent by disconnecting their garbage disposals and scraping food into the trash.

- Retain or install a fine meshed screen (1/8-inch and 3/16-inch screen openings are recommended) in the drain of each kitchen, mop, and hand sink. Clean drain screens frequently by placing the collected material in the garbage.

All FSE's are required to remove all food grinders when: (i) major operational changes take place; or (ii) any construction requiring a building permit for remodeling of the FSE valued at $500 or more. City Code § 9.25.025.

Dry Clean up

Remove food waste with "dry" 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 it eventually collects on the interior walls of drainage pipes. To practice dry clean-up:

- Use rubber scrapers to remove food particles, fats, oils, and grease from cookware, utensils, chafing dishes, and serving ware. Then place the removed food particles and FOG in the garbage.
- Use paper towels to wipe down all work areas.
- Use food grade paper to soak up oils and grease under fryer baskets.

Spill Prevention and Clean-up

Preventing spills reduces the amount of waste on food preparation and serving areas that will require clean up. In addition, a dry workplace is safer for employees in avoiding slips, trips, and falls. For spill prevention:

- Empty containers, before they are full, to avoid spills.
- Use a cover when transporting spillable materials, particularly liquid wastes containing fats, oils, and grease.
- Provide employees with proper tools (e.g., ladles, ample containers, etc.) to transport materials without spilling.

Practice effective spill containment and clean up. Spills of dry ingredients should be swept- up or vacuumed to prevent washing them into sinks or floor drains. For FOG spills:

- Block off all sinks and floor drains near the spill.
- Cover the spill with absorbent material (e.g., sand, saw dust, kitty litter, salt, paper towels, etc.).
- Remove spilled material and place it in the garbage.
- Use wet clean-up methods only to remove trace residues.

FSE's that use large amounts of cooking fats (e.g., deep fat fryers) should develop and post their spill response procedure and maintain spill containment and absorbent supplies.

Dishwashing and Equipment Cleaning

Proper dishwashing and cleaning methods can reduce the entry of solids and FOG into the Wastewater System. These methods include:

- Use disposable paper products, rather than dishware, to minimize or eliminate dishwashing.

- Pre-washing dishes and cookware with hot water and no soap, prior to use of the dishwasher or three-compartment sink, can reduce the discharge of FOG discharge by 25 percent. Pre-wash sinks used for this purpose must be connected to a Grease Trap.

- Prior to washing deep fat fryers, use a rubber spatula to squeegee down the sides, while grease and oils are still warm, and then wipe the fryer with paper towels. Dispose of the paper towels in the garbage.

- Before washing grill and roaster/broiler drip pans, empty their contents into a waste grease container and then wipe them with paper towels. Dispose of the paper towels in the garbage.

- Pour all liquid grease and oils from pots and pans into a waste grease container that is stored at the pot-washing sink, and then scrape out the solidified grease, if present.

- Capture accumulated oils, during the cleaning of stoves and ventilation/exhaust hoods, and dispose of it in the garbage, after absorbing all free liquid.

Recycling

Think of oils and grease as a valuable commodity. When using deep fat fryers or any process that requires or produces large amounts of plant or animal byproducts, collect the oils and fats. Recycle the oils and fats through one of the area's recycling companies. This is the preferred method of disposal for FSE's that produce any volume of food waste. To practice recycling:

- Never dispose of fryer-vat, waste oils and fats down the drain, as this material is usually clean enough to be recycled.

- Collect and store fryer-vat waste in a rendering tank. Most recycling companies will provide outside receptacles for storage until pickup. Outside receptacle should adhere to all city storm water guidelines. Some companies will offer services free-of-charge, and others will give a rebate on the materials collected.

Beneficial Use of Food Wastes

Food wastes can be put too beneficial use, rather than simply discarding them. To do this:

- Contact your local health department to approve the use of food waste.

Grease Traps

For indoor Grease Traps to be effective, the units must be properly sized, constructed, and installed in a location to provide easy access for cleaning and an adequate retention time for settling and accumulation of the FOG. If the units are too close to the FOG

discharge and/or do not have enough volume to allow accumulation of the FOG, the emulsified oils will pass through the unit without being captured. In addition:

- It is recommended that FSE's inspect indoor Grease Traps every month. These devices are less effective if the grease occupies greater than 25 percent of the holding capacity. If the grease occupies greater than 25 percent of the trap's holding capacity, the FSE should perform a full cleaning of the Grease Trap (removing all liquids and solids and scraping the walls). A monthly, full cleaning of Grease Traps is recommended. If less than 75 percent of the trap capacity remains, the trap should be cleaned more often than once per month.

- Confirm that Grease Traps contain their internal baffles and inlet piping flow restrictors/air relief during every inspection and cleaning. These components aid in grease removal by reducing turbulence and increasing holding time within the trap.

- It is required that FSE's maintain a record that documents the cleaning activities for indoor Grease Traps. Records should include the name of employee who performed the cleaning, date/time of cleaning, amount of grease removed, and the disposal location for the grease. An example of a form that could be used to maintain such records is contained in the Appendix of this manual, titled "Maintenance Report for Grease Trap".

Building Drains and Services Maintenance

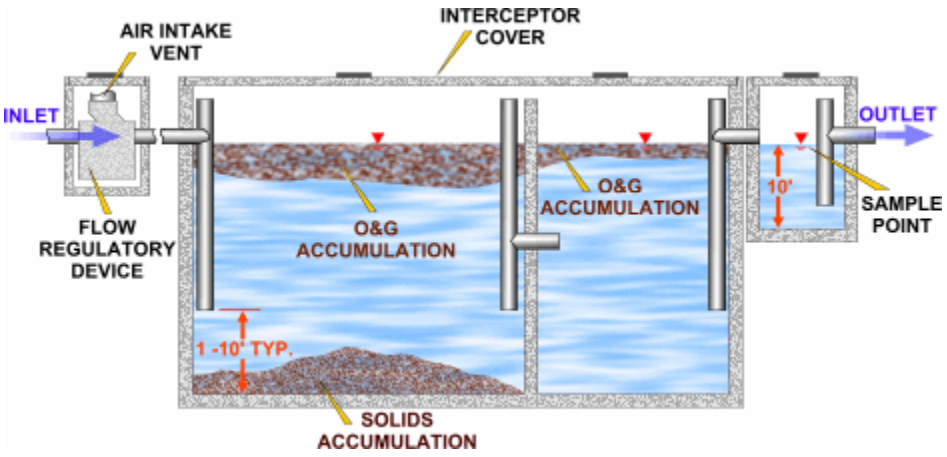
City Code requires proper maintenance of building drains and sanitary service lines. FOG and debris accumulation in these plumbing structures can cause or contribute to sanitary sewer backups and overflows. To reduce these accumulations:

- It is recommended that FSE's have their building drains and service lines professionally cleaned at least once per year.

Section IV: Grease Interceptors

Description and Applicability

The installation and maintenance of a grease interceptor is an important measure in ensuring that a FSE does not contribute to problems with the wastewater collection system. Grease interceptors differ from grease traps, which are small indoor devices. A Gravity grease interceptor is an outside, underground multi-compartment tank that reduces the amount of pollution (FOG) in Wastewater, before discharge into the wastewater collection system. GGI's are two-compartment units that apply a physical separation process to detain wastewater and allow FOG and water to separate due to differences in specific gravity. The separated FOG rises to the top, water flows to the wastewater system from below, and solid materials settle on the bottom. The floating grease layer is prevented from flowing to the wastewater system by a "Tee" or baffle that is installed on the effluent chamber of the interceptor. The detention capacity of the unit decreases as grease and solids accumulate; therefore, regular pumping, cleaning, and maintenance of GGI's are essential to ensure proper operation. "Hydromechanical *Grease Interceptor*": a device that is constructed in different sizes and is generally required to be located, according to the California Plumbing Code, underground before the connection to the sewer system. These devices can be installed inside the FSE footprint or outside the restaurant. They are generally rated in GPM and/or lbs of FOG retained. These devices must be cleaned periodically and ventilated. They shall be cleaned to allow no more than 25% of the allowable volume of the device is compromised by FOG and foot solids. For grease interceptors to be effective, the units must be properly sized, constructed, and installed in a location that provides easy access for inspection and cleaning. Grease interceptors are pretreatment facilities that are subject to plan submission and operations requirements of the City Code § 9.25.035.



Section of a typical GGI's

Installation Requirements

General

Individual grease interceptors are required for FSE's, whether or not such facilities are located in a separate building or structure or occupy space in a building or structure that

is occupied by other businesses. If the volume or nature of food service provided by the establishment dictates significant food preparation, operation of a garbage grinder, and automatic dishwasher, a discharge of FOG waste is highly likely and a grease interceptor is required. There are some exceptions to the requirement for a grease interceptor, pursuant to the conditions set in the section “Permit Requirements.”

Each new grease interceptor that is installed to replace or upgrade existing grease traps or grease interceptors will be required to meet all criteria stated in the current uniform plumbing code.

Developers of shopping centers currently are encouraged by the City of Seal Beach to install two dedicated sanitary service lines, stub outs to direct the kitchen wastes of future food service facilities into an outside grease interceptor, then return the effluent from the grease interceptor back into the building sanitary sewer.

For properties with multiple FSE’s on a single parcel, each FSE shall be individually and separately responsible for installation and maintenance of the grease interceptor. A single grease interceptor can be used to service multiple FSE’s only upon approval by the Director (City Code § 9.25.045).

Installation Specifications

Grease interceptors shall be installed in conformance with the current version of UPC Appendix H for the installation of grease interceptors. This document includes detailed specifications for the following:

- Required and prohibited interceptor connections,
- Design requirements,
- Siting requirements,
- Maintenance requirements,
- Sizing criteria, and
- Variances.

In addition, this manual recommends that all grease interceptors be installed in such a manner that they can be accessed and properly maintained 24 hours per day. Manhole covers are required to be accessible at all times. Therefore, interceptor manhole covers should not be covered with asphalt, concrete, landscaping, or other materials. If a grease interceptor is located in a landscaped area, all access manhole frames and covers shall have a twelve (12) inch wide concrete collar.

Additional Considerations

It is important for a FSE to weigh costs and benefits and consider operational characteristics when evaluating grease interceptor design and capacity needs. While the initial capital investment may be less with a smaller-capacity grease interceptor, an establishment risks paying more in pumping and maintenance fees and possibly fines should the interceptor prove to be inefficient in meeting FOG requirements. The following

is a list of changes that could initiate an increase in FOG discharges and expose owners of FSE's to possible violations and sewage spill overflows:

- Menu expansion
- Seating capacity expansion
- Menu changes
- Changes in facility management and the use of BMPs

Therefore, FSE operators are encouraged to consider the following when selecting and installing a grease interceptor:

- Plan for the worst-case scenario, or at the very least, invest in a grease interceptor that is slightly larger than the minimum size calculated based on the current version of the UPC.
- Consider physical aspects of the building (size, parking spaces, number of seats, number of meals).
- Consider establishment characteristics (e.g., menu, serving schedule, single service/full service, etc.).
- In places where flows in the wastewater system are low, users need to exercise greater care in grease control. Areas of low flow are a normal aspect of wastewater systems and are not considered design deficiencies or engineering or infrastructure problems.
- Assess future needs for expansion and growth.
- Evaluate effectiveness of establishment grease management practices.
- Plumb the grease interceptor to receive kitchen wastes only. To minimize hydraulic load, it is recommended that a separate drain be plumbed for hand sinks, condensate lines, or other non-grease-laden water.
- All grease interceptors must be fully accessible to allow for regular maintenance, inspection, cleaning, and potential sampling. FSE's can be severely inconvenienced when grease interceptors are placed in drive-through lanes or other access or parking areas.

Operation and Maintenance and Requirements

Operation

A Gravity grease interceptor is a tank comprised of two compartments separated by a baffle. Each compartment is accessible through a separate manhole. A "Tee" is positioned on the inlet to the first compartment to route the flow downward to the bottom of the compartment thereby reducing turbulence within the unit. There is also a "Tee" on the outlet from the second compartment that ensures outflow originates from the bottom of the compartment and that the floating grease layer is retained. A missing, altered, or damaged outlet "Tee" is an impairment of the ability of the GGIto pretreat the wastewater and could result in violations of City Code § 9.25.135.

Maintenance

Proper operation and maintenance of grease interceptors includes routine inspection, cleaning, pumping, and repair as described in this section. These units are less effective if FOG and solids occupy greater than 25 percent of the interceptor's capacity. It is recommended that FSE's inspect grease interceptors at least every three months.

During each inspection, it is recommended that users document measurement of the grease layer, in inches, in both compartments by pushing a garden hoe through the grease layer or taking a core sample with a "sludge judge." During each inspection of a Grease Interceptor, it is recommended that FSE's open both manholes and confirm that the "Tees" on both the inlet and outlet pipes are intact. Inspections should be documented in accordance with the Recordkeeping activities, described below.

Inspection

The Director may inspect and sample wastewater discharges of any FSE to ascertain whether conditions of the FOG discharge permit are being met. Reasonable access to all parts of the FSE shall be made available when inspection and/or sampling of the wastewater is required (§ 9.25.115 and 9.25.120). The FSE shall make available, for the purposes of inspection, the following (§ 9.25.25.110 B):

- Access to grease control devices
- Manifests, receipts, and invoices of grease device maintenance
- Documents identifying the waste hauler carrier
- Documents identifying the disposal site locations

The following table describes how often inspections of the grease interceptor and the kitchen BMPs are to be performed by the Director or City representatives:

Permit and Inspection Frequency Table

	No FOG Discharge	**FOG Discharge + Grease Device**	**FOG Discharge + No Grease Device**
Permit Renewal	12 Mon	12 Mon	12 Mon
BMP Inspection	None	12 Mon	12 Mon
GI Inspection	None	3 Mon	none

Cleaning

If the FOG and solids occupy greater than **25 percent of an interceptor's capacity**, the FSE is required to perform a full cleaning of the grease interceptor. **Cleaning must be performed by a licensed waste hauler with an approved license from an authorizing agency**. Both vaults of a grease interceptor shall be left completely empty upon completion of pumping operation. The grease mat, liquids, sludge, and scrapings from the interior walls must be removed. Under no circumstances, may the waste hauler reintroduce the removed water or materials be reintroduced into the City of Seal Beach sewer system, other than at qualified disposal stations. Flushing an interceptor 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 City Code 9.25.135.

Since the FSE is the generator of the grease waste, is liable for the condition of their pretreatment devices, and is paying for the cleaning service, the FSE owner or designee

may want to witness all cleaning/maintenance activities to verify that the Grease Interceptor is being fully cleaned and properly maintained. The following are the pumping practices required of licensed waste haulers:

Step 1: 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.

Step 2: Place the vacuum tube all the way into the Grease Interceptor to withdraw remaining solids from the bottom.

Step 3: Vacuum water out of the Grease Interceptor.

Step 4: 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 hot water source to hose down the interceptor. Make sure the Grease Interceptor is completely clean.

Step 5: Vacuum the remaining water out of the Grease Interceptor.

Step 6: Check that the sanitary “Tees” on the inlet and outlet sides of the Grease Interceptor are not clogged, loose, or missing.

Step 7: Verify that the baffle is secure and in place.

Step 8: Inspect the Grease Interceptor for any cracks or other defects.

Step 9: Check that lids are securely and properly seated after completion of pumping.

Step 10: Provide a copy of the liquid waste hauler load ticket (manifest) to the FSE (waste generator). An example of this form is provided in the Appendices section of this manual.

Recordkeeping

It is required that FSE’s maintain a written record of every time a grease interceptor is inspected and cleaned and it is a violation of city code when the FSE fails to maintain and keep up-to-date accurate records of all cleaning, maintenance, and removal of FOG wastes (§ 9.25.135).

Inspection records should document date of inspection, name of company and person performing inspection, estimated volume of FOG present, and the signature of the manager or designee of the FSE. An example of this record is provided in the Appendices section of this manual.

Cleaning records should document the date of maintenance, name of company and person performing maintenance, estimated volume of FOG removed, disposal location, and establishment manager’s, or designee’s, signature for verification. A manifest from the permitted liquid waste hauler is an acceptable record, if it contains all of the above information.

It is required that Inspection and cleaning records be maintained on the premises for a period of at least two years and be made readily available to the City of Seal Beach personnel for review and inspection (§ 9.25.110 B).

Section V: Public Education

The City of Seal Beach has partnered with the County of Orange and the Orange County Sanitation District to provide educational materials to FSE's. Brochures and posters have been prepared in English and Spanish that describe Best Management Practices to handle FOG wastes. These brochures and posters can be provided to every new FSE in the City's service area to educate people on FOG BMPs and to provide on site visits to newly licensed establishments.

Websites are also available for more information regarding FOG:

www.ci.seal-beach.ca.us/publicworks
The Seal Beach Department of Public Work's Sewer / Wastewater Division is responsible for maintaining the City's sewer collection system. Approximately 1.54 million gallons of sewage is collected each day and is transported by 155,000 feet of pipe ranging in size from 6" to 24" in diameter, pumped by nine separate sewer lift stations until it reaches the Orange County Sanitation District system where it is processed for treatment.

www.ocsd.com/services/city/wdr
The Orange County Sanitation District (OCSD) leads a steering committee that includes all cities and agencies within its service area to develop policies and procedures to comply with the Regional Board order.

www.swrcb.ca.gov/rwqcb8/html/oc_sso.html
This is the direct link to the Regional Board Order that discusses waste discharge requirements and deadlines that sewer agencies and municipalities are required to meet.

www.epa.gov/owm
The United States Environmental Protection Agency's Office of Wastewater Management (OWM) oversees a range of programs contributing to the well being of the nation's waters and watersheds. Through its programs and initiatives, OWM promotes compliance with the requirements of the Federal Water Pollution Control Act.

www.ocwatershed.com
The Watershed & Coastal Resources Division is one of six units in the Public Facilities & Resources Department. This division is responsible to develop regional management strategies to preserve, protect, and enhance coastal resources and surface waters throughout Orange County.

Section VI: Permits and Enforcement

Description and Applicability

This section provides a description of the permit requirements and enforcement procedures that apply to FSE's that fail to comply with the requirements in City Ordinance and any other applicable laws of other agencies.

The EPA, in its general pretreatment regulations (40 CFR Part 403) and the City, in its FOG Ordinance, prohibit any user, including FSE's, from discharging solid or viscous pollutants, such as FOG wastes, in amounts which will cause obstructions (blockages) to the flow in the wastewater system and interfere with the operation of the wastewater system. The City of Seal Beach is required by the EPA, the State, and City code, to initiate enforcement actions against users of the wastewater system, who violate this prohibition.

The City of Seal Beach will initiate enforcement actions for noncompliance, but it is possible for the EPA or the State to initiate their own enforcement actions if, in their opinion, the City has not taken adequate enforcement.

Permit Requirements

All FSE's are required to obtain a FOG Wastewater Discharge Permit to discharge wastewater into the sewer system and pay a fee as set by the permit fee schedule.

Grease interceptors shall be required for all new and existing FSE's during the plan review/building permit process. A variance or a waiver may be granted when certain terms and conditions are met (§ 9.25.035). Please see below.

Variances and Waivers

Grease interceptors shall be required for all new and existing FSE's during the plan review/building permit process. A variance or a waiver may be granted when certain terms and conditions are met (§ 9.25.035).

Conditions for a Variance (§ 9.25.040 A):

(1) An alternative technology that is equally effective in controlling FOG discharge and that it is impossible to install a grease interceptor
(2) FSE demonstrates to Director's satisfaction that FOG discharge is negligible and will have insignificant impact to sewer system; or

Conditions for a Waiver (§ 9.25.040 B):

In the case when conditions for a variance cannot be met, a waiver from grease interceptor requirements may be granted with the charge of a grease disposal mitigation fee. This fee would cover the costs for the City of Seal Beach to perform regular sewer pipe cleanings in areas with potential to cause sewer blockages and overflows.

However, a waiver from installing a grease interceptor **would not be granted** if either:

(1) An FSE applies for a discretionary permit; or

(2) A major remodeling of an FSE involving $50,000 or more is done and involves any one or more combination of the following:

(i) Under slab plumbing in the food processing area
(ii) A 30% increase in net public seating area
(iii) A 30% increase in kitchen size area
(iv) Any change in size or type of food preparation equipment.

Exemptions and Mitigation Fee

• **Exemption from FOG Discharge Permit:** A limited food preparation establishment is not considered a Food Service Establishment and is exempt from obtaining a FOG Discharge Permit. Exempted establishments shall be engaged only in reheating, hot holding or assembly of ready to eat food products and as a result, there is no wastewater discharge containing significant amount of FOG. A limited food preparation establishment does not include any operation that changes the form, flavor, or consistency of food.

• **Grease disposal mitigation fee:** FSE's that operate without a grease control interceptor may be required to pay an annual Grease Disposal Mitigation Fee to equitably cover the costs of increased maintenance and administration of the sewer system as a result of the FSE's' inability to adequately remove FOG from its wastewater discharge. This section shall not be interpreted to allow a new FSE, or existing FSE's undergoing remodeling or change in operations, to operate without an approved grease interceptor unless the Director has determined that it is impossible to install a grease interceptor.

Blockages and Sewer Spills

• **Blockages:** Enforcement activities often commence with investigations of blockages and overflows of the wastewater system. Such investigations may include closed circuit television inspection of sewer lateral lines and privately owned service lines. These inspections are used to determine contributing factors causing the blockage or overflow, such as defective infrastructure, accumulated roots and/or debris, and to seek visual evidence of FOG waste accumulation between the site of the stoppage or overflow and upstream FSE's. If significant FOG accumulation is observed in the service line of an upstream FSE, that establishment is identified as causing or contributing to the downstream stoppage or overflow. Inspection findings for the grease traps and grease interceptors of upstream FSE's are also used to determine:

• **Sewer spills and cleanup costs:** Notwithstanding any waiver of grease interceptor, FSE's determined by the Director to have contributed to a sewer blockage, SSOs or any sewer system interferences resulting from the discharge of wastewater, may be ordered by the Director to immediately install and maintain a grease interceptor and any other requirements.

Violations and Enforcement Responses

The City of Seal Beach has a range of enforcement responses that can be applied for compliance to the FOG Ordinance. The enforcement remedies are cumulative; in other words, they may be used individually, sequentially, concurrently, or in any order.

Monetary fines are federally required enforcement responses and are usually one of the last enforcement actions the City will use when encountering noncompliance.

It is the expectation of the City that efforts to keep FOG from entering into the wastewater system can be achieved with public education and common interest in preventing health hazards and damage to homes and businesses.

Violations of the City's FOG Ordinance can include:

- Failure to install an approved grease control device
- Makes any false statement, representation, record, report, plan or other document that is filed with the City
- Tampers with or knowingly renders inoperable any grease control device
- Fails to clean, properly operate, maintain or remove FOG from a grease control device within the required time for such cleaning, maintenance or grease removal
- Fails to keep up-to-date and accurate records of all cleaning, maintenance, and FOG removal and upon request to make those records available to any City Code Enforcement representative, or his or her designee, any representative of a local sanitation agency that has jurisdiction over the sanitary sewer system that services the FSE, or any Authorized Inspector
- Refuses a City Code Enforcement representative, or his or her designee, a representative of a local sanitary sewer agency that has jurisdiction over the sanitary sewer system that services the FSE, or any Authorized Inspector, reasonable access to the FSE for the purposes of inspecting, monitoring, or reviewing the Grease Control Device manifests, receipts and invoices of all cleaning, maintenance, grease removal of/from the Grease Control Device, and/or to inspect the Grease Control Device
- Disposes of, or knowingly allows or directs FOG to be disposed of, in an unlawful manner
- Fails to remove all food grinders located in the Food Facility by the date specified by the Ordinance
- Introduces additives into a wastewater system for the purposes of emulsifying FOG without the written, specific authorization from City and the sanitary sewer agency that has jurisdiction of the sanitary sewer system that services the FSE
- Fails to pay the Grease Disposal Mitigation Fee
- Fails to comply with the provisions of the FOG Manual
- Otherwise fails to comply with the provisions of the FOG Ordinance or any permit issued by the City

Procedures the City may take to enforce the FOG Ordinance can include:

- Notices of violation
- Requirements to enter into a compliance schedule agreement (CSA)
- Suspension or revocation of waste discharge permit
- Costs and charges to reimburse the City to clean and/or repair the sewer system or sewer facilities
- Suspension or termination of sewer and water service
- Civil penalties and/or criminal penalties

Notices of Violation

Notices of violation may include verbal notice, information production/compliance review meeting, inspections, field notices of observed violations, and notices of violations. Regarding notices of violation, an informal conference with the City may be requested and an appeal is available after an informal conference. The notification of violation is more fully explained below.

During an inspection of a FSE, if a violation is noted, a written notice of violation may be served. This document identifies the specific requirements that were violated, the fact alleged to constitute the violations, and it may include any corrective action(s) proposed to be required. Within ten (10) days of the receipt date of this notice, a written explanation of or response to the violation and a plan for the satisfactory correction and prevention thereof must be submitted. An example of this document is provided in the Appendices.

The corrective actions contained in a Notice of Violation could include the following:

- Implementing specific BMPs to control FOG wastes, including submittal of a CSA;
- Increasing the inspection and/or cleaning frequency of a Grease Trap or Grease Interceptor;
- Provide adequate maintenance and/or access to the Grease Trap or Grease Interceptor; and
- Other items deemed appropriate by the Director or his designee.

Compliance Schedule Agreement

Upon determination by the Director that a FSE or owner of a property is in noncompliance with its FOG Wastewater Discharge Permit or any other provision, or needs to construct and/or acquire and install a grease control device or grease interceptor, the Director may require the permittee, owner or operator to enter into a CSA (§ 9.25.140). A CSA must include the following information:

- A description of the FSE operation,

- A description of the location and size of any Grease Interceptors and Grease Traps present,
- A description of the FOG BMPs used by the FSE,
- A description of the procedures to prevent discharges of waste fat, oils and grease,
- A description of waste FOG handling, storage, and disposal procedures,
- A description of how the Grease Interceptor or Grease Trap will be maintained (cleaned) including frequency of cleaning,
- A description of how the FSE will comply with quarterly reporting requirements, and
- A certification statement that is signed by the owner or manager of the FSE.

The City will provide the FSE with written notice of its acceptance of the FOG control plan. The Director may require modifications to a FOG control plan, if the plan submitted by a FSE is determined to be inadequate. Failure to implement any element of an accepted plan is a violation and subject to enforcement.

Administrative Hearing Procedures

Any FSE, permit applicant, or Permittee adversely affected by a decision made by the Director may appeal the decision and file a written request for hearing before the City Manager, if such filing is done within 10 days of the decision and accompanied by an appeal fee.

Appendices

This section includes samples of the following documents that can be found behind one of the tabs in the training binder:

A. Maintenance Log for Exhaust Hood

B. Employee Training Log

C. Kitchen BMP Inspection Report

D. Grease Interceptor Inspection Report

E. Proper Pumping Procedure for a Grease Interceptor

CITY OF SEAL BEACH, DEPARTMENT OF PUBLIC WORKS
211 EIGHTH STREET, 2ND floor, SEAL BEACH, CA 90740
(562) 431-2527 ext. 1328

City of Seal Beach
Grease Exhaust Hood Maintenance Log

Name of Food Service Establishment: _____

Address/City: _____

The manager must use this form to record exhaust hood maintenance activities.

- The service provider must sign this form.

Keep this form in your records to show the City's Authorized Inspector.

Maintenance Date	Name of Service Provider (print)	Service Provider Employee Signature	Comments (optional)	Manager's Initials

CITY OF SEAL BEACH, DEPARTMENT OF PUBLIC WORKS
211 EIGHTH STREET, 2ND floor, SEAL BEACH, CA 90740
(562) 431-2527 ext. 1328

EMPLOYEE TRAINING LOG

Use this form to record training sessions and attendance. All employees must attend a grease control training session twice each year. Training must include distribution of "Best Management Practices" brochure and viewing of the Grease Control Program video.

Employees: *Your signature on this form acknowledges that you have received the "Best Management Practices" brochure and that you have viewed the Grease Control Program video.*

FOOD SERVICE ESTABLISHMENT: _____
ADDRESS: _____

Date	Employee Name	Signature	Video (Y / N)	Brochure (Y / N)	Manager

CITY OF SEAL BEACH
DEPARTMENT OF PUBLIC WORKS
211 EIGHTH STREET, 2ND FLOOR
SEAL BEACH, CA 90740
(562) 431-2527 EXT.1328

KITCHEN BMP INSPECTION REPORT

Name of Facility:_____ **Address:**_____

Name/Title of Facility Contact:_____ **Phone #** _____

Facility / BMP Inspection:

1.	Removal of Food Grinder	Installation/usage prohibited per city ordinance
2.	Grease Collection Maintenance Log	Must be kept current and accessible at all times
3.	Exhaust Hood Maintenance Log	Must be kept current and accessible at all times
4.	Employee Training Log	Must be kept current and accessible at all times
5.	Drain Screens Installed/Maintained	Must be present and in good working condition
6.	Food Waste Practices	Food Waste to be placed in plastic bags or trash, not in sink(s)
7.	Dry Wiping Practices	Pots, Pans, Plates to be Dry Wiped of food debris before washing
8.	Emergency Spill Response Materials	Grease Absorbent Materials present/accessible in event of spill
9.	BMP Poster(s) in approved areas	BMP Poster visible in all food preparation and dishwashing areas

Remarks: _____

_____

_____

( ) Facility is in **COMPLIANCE.** No corrective action is required at this time (note any remarks)

( ) NOTICE OF NON-COMPLIANCE

Facility is not in compliance for the items checked below. Corrective action is required.

( ) Food Grinder installed or in usage
( ) Grease Collection Maintenance Log missing/not current
( ) Exhaust Hood Maintenance Log missing/not current
( ) Employee Training Log missing/not current
( ) Drain Screens missing/damaged/clogged
( ) Food Waste in sink(s) and not in enclosed plastic bag or garbage
( ) Employee(s) observed not following Dry Wiping practices
( ) Missing/inadequate or inaccessible Grease Absorbing Material(s)
( ) BMP Poster(s) missing/obscured/damaged etc.
( ) Other_____

Required corrective action includes any or all of the following:

( ) Remove Food Grinder(s)
( ) Make available/accessible/update Maintenance or Training Log(s)
( ) Install/repair/clean drain screen(s)
( ) Instruct/train employee(s) to observe all listed BMP's
( ) Make available/accessible Grease Absorbent Material(s) for use in event of spill
( ) Post/repair/replace BMP Poster(s) in all food preparation and dishwashing areas
( ) Other_____

The items checked above must be corrected within _____ days from date of this notice

_____ _____
Signature of Facility Contact Date

_____ _____
Inspector Date

White – Establishment **Green – Inspector** **Canary – City**

CITY OF SEAL BEACH
DEPARTMENT OF PUBLIC WORKS
211 EIGHTH STREET, 2ND FLOOR, SEAL BEACH, CA 90740
(562) 431-2527 EXT.1328

GREASE INTERCEPTOR INSPECTION REPORT

Name of Facility: _____ CSB Account # _____

Address of Facility: _____ Zip _____

Name/Title of Facility Contact _____ Phone # _____

FACILITY/INTERCEPTOR INSPECTION:

Parameter	Range/Limit	Results
1. Lower Explosive Limit (LEL)	10% or less	
2. pH Range	5.0 to 11.0	
3. Oil and grease	300 mg/L	
4. Hydrogen Sulfide	10 ppm or less	
5. Mechanical condition	See Results	
6. Other	See Results	

Remarks _____

[ ] Facility is in **COMPLIANCE**. No corrective action is required at this time (note any remarks)

[ ] **NOTICE OF NONCOMPLIANCE.**
Facility is in noncompliance of the items checked below. Corrective action is required immediately.
- [ ] Interceptor inaccessible for inspection.
- [ ] Interceptor capacity has been exceeded.
- [ ] Excessive oil and grease in the sample box.
- [ ] Discharge (effluent) line restricted.
- [ ] Baffle tubes plugged, submerged, damaged or missing.
- [ ] Other _____

Required corrective action includes any or all of the following:
- [ ] Promptly remove any obstruction that does not allow safe and easy access to the interceptor.
- [ ] Repair or replace baffles.
- [ ] Pump out interceptor completely.
- [ ] Other _____

The above checked item(s) must be corrected within seven (7) days of receipt of this Notice of Noncompliance.
Corrective action shall be verified by a return inspection on _____

ACKNOWLEDGEMENT OF RECEIPT OF INTERCEPTOR INSPECTION REPORT

_____ _____
Signature of Facility Contact Date

_____ _____
Inspector Date

White – Establishment **Green – Inspector** **Canary – City**

ORANGE COUNTY SANITATION DISTRICT

FACT SHEET

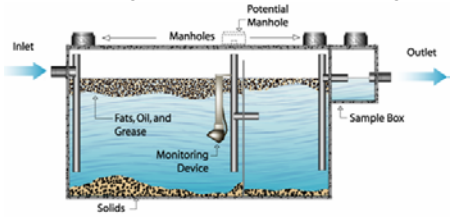
Grease Interceptors

When fats, oils, and grease (FOG) enter the sewer, they create a variety of problems, such as sewer blockages and spills, which put the health and safety of the public at risk. Grease interceptors have played an important role in preventing accumulated FOG from clogging sewer lines. A grease interceptor is a proven and effective grease collection device, which when combined with Best Management Practices (BMPs), significantly reduces the amount of FOG entering the sewer.

What is a Grease Interceptor?

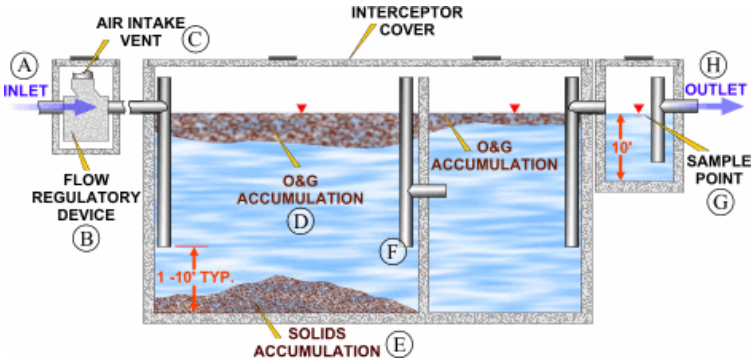
- A grease interceptor is a control device that is designed to collect and intercept FOG and food waste from wastewater discharged from Food Service Establishments, until they can be removed and disposed by wastehauling. It is typically a large concrete box with two or three compartments and is usually installed underground outside Food Service Establishments.

- Grease interceptors separate FOG from wastewater by gravity. Since FOG weighs less than water, the grease floats on the water surface when given sufficient time.



- Grease interceptors are designed such that the wastewater flow is slowed down to allow sufficient time for FOG to separate. This allows FOG to collect as a thick mat on the surface inside the interceptor.

How it works



The following describes how a grease interceptor works:

A	Flow from undersink grease traps or directly from plumbing fixtures enters the grease interceptor. The Uniform Plumbing Code (UPC) requires that all flow entering the interceptor must enter through the inlet pipe.
B	An approved flow control or restricting device is installed to restrict the flow to the grease interceptor to the rated capacity of the interceptor.
C	An air intake valve allows air into the open space of the grease interceptor to prevent siphonage and back-pressure.
D	FOG floats on the water surface and accumulates behind the grease retaining fittings and the wall separating the compartments. FOG will be removed during routine grease interceptor cleaning.
E	Solids in the wastewater that do not float will be deposited on the bottom of the grease interceptor and will need to be removed during routine grease interceptor cleaning.
F	Grease retaining fittings extend down into the water to within 12 inches of the bottom of the interceptor. Because FOG floats, it generally does not enter the fitting and is not carried into the next compartment. The fittings also extend above the water surface to provide air relief.

G	Some interceptors have a sample box so that inspectors or employees of the food service establishment can periodically take effluent samples. Having a sample box is recommended by the UPC but not required.
H	Flow exits the interceptor through the outlet pipe and continues on to the sanitary sewer system.

Installation Considerations

- Install the grease interceptor as close as practical to the fixture(s) being served. This is important because every foot of piping between the fixture(s) and the interceptor is a potential maintenance problem.
- The grease interceptor should be located in an accessible area such that cleaning and maintenance can be easily performed. The placement should allow the interceptor cover to be visible and easily removable for cleaning. Anticipate sufficient clearance for removal of the cover and baffle for cleaning.
- Plumbing containing discharges from food grinders, dishwashers, and wastes from toilets, urinals, wash basins, and other fixtures containing fecal materials should bypass the grease interceptor.
- A properly sized and designed grease interceptor may not work efficiently if it is installed incorrectly. A licensed plumbing contractor can handle all aspects of the interceptor installation which may include equipment procurement, plumbing, and in-ground installations that include excavations and concrete cutting/repair.
- The cost of installation will vary depending on the site. Cost factors include the size of the device, space, grade, proximity to a sewer line, and above-ground or in-ground installation.

Proper Maintenance

Regular maintenance is essential to the proper operation of grease interceptors. Even the best designed and properly installed interceptors will fail when improperly maintained.

- Grease interceptor maintenance, which is usually performed by permitted haulers or recyclers, consists of removing the entire volume (liquids and solids) from the grease interceptor and properly disposing of the material in accordance with all Federal, State, and/or local laws.
- Grease interceptors must be fully pumped out and cleaned at a frequency such that the combined FOG and solids accumulation does not exceed 25% of the total interceptor design hydraulic depth. This is to ensure that the minimum hydraulic retention time and required available hydraulic volume are maintained to effectively intercept and retain FOG discharged from the facility.
- OCSD's FOG Ordinance requires Food Service Establishments to clean their grease interceptors at least every 6 months. Typically, Food Service Establishments are required to clean grease interceptors once every 3 months. The frequency may increase depending on the capacity of the device, the amount of FOG in the wastewater, and the degree to which the facility has contributed to blockages in the past.
- Implementation of BMPs may reduce the required maintenance frequency for grease interceptors due to a reduction of FOG and solids loading on the interceptor, thereby reducing maintenance costs. Refer to the Fact Sheet for BMPs that may be implemented.

Maintenance Procedures

A proper grease interceptor maintenance procedure is outlined below:

1	Contact a grease hauler or recycler for cleaning.
2	Ensure that all flow to the interceptor is stopped by shutting the isolation valve in the inlet piping to the interceptor.
3	Remove the lid and bail out any water in the trap or interceptor to facilitate cleaning.
4	Remove baffles if possible.
5	Dip the accumulated grease out of the interceptor and deposit in a watertight container.
6	Pump out the settled solids and then the remaining liquids.
7	Scrape the sides, the lid, and the baffles with a putty knife to remove as much of the grease as possible, and deposit the grease into a watertight container.
8	Replace the baffle and the lid.

Choosing a Grease Hauler

When selecting a grease wastehauler, be aware that services and prices can vary. Minimum services should include:

- Complete pumping and cleaning of the interceptor, rather than just skimming the FOG layer.
- Deodorizing and thorough cleaning of affected areas, as necessary.
- Disposal/reclamation at an approved location.

Representatives of food service establishments should witness all cleaning/maintenance activities to verify that the interceptor is being fully cleaned and properly maintained.

Keeping Records

Careful record-keeping is one of the best ways to ensure that the grease interceptor is being cleaned and maintained on a regular basis.