
CHAPTER 22

Fats, Oils and Grease Control

22.01 Introduction

22.01.01 The purpose of the fats, oils, and grease (FOG) control regulations are:

- 1) To prevent the introduction of FOG into the public sewer that will interfere with its operation.
- 2) To prevent the introduction of FOG into the public sewer, the publicly owned treatment works, and, if inadequately treated, into receiving waters.
- 3) To prevent sanitary sewer overflow (SSO) that can contaminate the soil, local water bodies and any property that is exposed to sewerage.
- 4) To prevent an obstruction in the sanitary sewer causing a backup of sewage into homes and businesses.
- 5) To reduce maintenance and repair costs, which are borne by all the users of the sanitary sewer system.

22.02 Applicability

22.02.01 This regulation shall apply to all non-domestic users of the public sewer generating grease, including food service establishments, inclusively termed generators (generators).

22.02.02 Grease interceptors shall not be required for residential users.

22.02.03 This regulation shall apply to both new and existing facilities generating fats, oils, or greases as a result of food manufacturing, processing, preparation, or food service. These facilities are referred to as "Food Service Establishments" (FSE's) in this regulation. FSE's are required to install, use, and maintain appropriate grease interceptors as required in Section 22.03 of this regulation. These facilities include, but are not limited to, restaurants, food manufacturers, food processors, hospitals, hotels and motels, prisons, nursing homes, and any other facility preparing, serving, or otherwise making any foodstuffs available for consumption.

22.02.04 FOG Generators are responsible for maintaining grease interceptors in continuous proper working condition, by removing the oil and grease buildup in the interceptor at sufficient intervals to ensure compliance with Stark County Sanitary Engineers Rules (SCSE) and Regulations. Further, FOG generators are responsible for inspecting, repairing, replacing, or installing apparatus and equipment as necessary to ensure proper operations and function of grease interceptors and compliance with discharge limitations at all times.

22.03 Grease Interceptors Required

22.03.01 New Facilities. Food processing or food service facilities which are newly proposed or constructed, or existing facilities which will be expanded or renovated to include a food service facility, where such a facility did not previously exist, shall be required to design, install, operate and maintain a grease interceptor in accordance with these regulations.

Grease interceptors shall be installed and inspected prior to use.

22.03.02 Existing Facilities. Existing facilities undergoing any of the following shall be required to design, install, operate and maintain a grease interceptor in accordance with these regulations, when the existing grease trap does not comply with these regulations.

- 1) Interior remodeling to accommodate expansion or operational modification.
- 2) Changes of ownership or occupancy.
- 3) Major changes in their menu; and
- 4) When an existing facility experiences difficulty achieving compliance with maintenance and/or wastewater discharge limitations.

22.04 Location and Sizing Requirements:

22.04.01 The location of grease traps shall be outside the building and provide easy access for cleaning and inspection. Sizing methods described herein are intended to assist in determining grease interceptor sizes that will afford the County's sanitary sewer system a minimum degree of protection against grease and other obstructing materials. In approving a customer's plumbing or grease interceptor design, the County does not accept liability for the system's failure to treat wastewater adequately to achieve the effluent quality requirements stated in Chapter 3. It is the responsibility of the generator and/or contractors to insure the appropriate level of treatment necessary for compliance with wastewater regulations.

Minimum acceptable grease interceptor sizing shall be accomplished as follows:

- 1) Sizing according to formulas found in Section 22.04.02 below.
- 2) Where sizing formulas result in determination of a grease interceptor less than 750 gallons in capacity, this minimum size is required wherever possible. The maximum required grease interceptor size shall be 3,000 gallons.
- 3) In instances where it is physically impossible to install an outside grease trap, a letter must be submitted to the Stark County Combined General Health District (Health Department) and the Sanitary Engineer's Office stating the reasons it cannot be installed and then a general review by the Health Department will follow to verify the validity of the claim. The Sanitary Engineer's variance form must be completed and provided to both agencies.
- 4) In the circumstance of "single service kitchens" with no food preparation (heat/serve only), that use only disposable paper and plastic service utensils, and do not have a high temperature dishwasher; a hydro-mechanical grease trap may be used. The Sanitary Engineer's variance form must be completed and provided to both agencies. Additionally, when an exterior grease interceptor is deemed physically impossible as stated in 22.04.01.3, a hydro-mechanical grease trap may be used. The trap must meet PDI-G 101 specifications. In these instances, the grease trap is to be readily accessible for cleaning and maintenance. (See section 22.05 below.) Grease interceptors will be sized as per 22.04.02.

22.04.02 Grease Interceptor sizing formulas:

It is the responsibility of the generator and his/her contractors to ensure that the wastewater discharged from their facility complies with the County's discharge limitations. For the purpose of plan review, a general assessment of grease interceptor design and size will be performed using the following formula: (Source: Appendix H of the Uniform Plumbing Code, Grease Interceptor Sizing Worksheet.)

$$\begin{array}{ccccccc} (\# \text{ of meals/per peak hour}) & \times & (\text{waste flow RATE}) & \times & (\text{retention}) & \times & (\text{storage}) = \text{size} \\ (1) & & (2) & & (3) & & (4) \end{array}$$

Factors:

(1) # of meals served at peak operating hour (Seating Capacity)x(Peak Factor):

- a. Peak Factor for Fast Food Restaurant is.....1.33
- b. Peak Factor for all other food service types is...1.00

(2) Waste Flow Rate:

- a. with dishwasher..... 6 gallon flow
- b. without dishwasher..... 5 gallon flow
- c. single service kitchen..... 2 gallon flow
- d. food waste disposer.....1 gallon flow

(3) Retention times:

- a. commercial kitchen waste/dishwasher.....2.5 hours
- b. single service kitchen/single serving.....1.5 hours

(4) Storage factors:

- a. fully equipped commercial kitchen..... 8 hr. operation = 1
- b. fully equipped commercial kitchen 16 hr. operation = 2
- c. fully equipped commercial kitchen24 hr. operation = 3
- d. single service kitchen.....= 1.5

22.04.03 Example:

A 75-seat restaurant is open from 4:00 pm. until 12:00 am.

It has a dishwasher and a fully equipped commercial kitchen on a normal street.

(Number of meals)x(waste flow)x(retention)x(storage)= size requirement
(75)(1)] x (6 gallons) x (2.5 hours) x (1) = 1125 gals.

22.04.04 Hydro-mechanical Grease Trap Sizing

- 1) Determine the volume of all fixtures being drained (cubic inches).
- 2) Convert cubic inches into gallons.
- 3) Determine actual drainage load (75% of total content).

- 4) Determine flow rate for 2-minute drainage period.
- 5) Flow rate = actual drainage load ÷ drainage period.

TABLE 22.04.01	
Capacity of Grease Traps	
Total Flow Through Rating (GPM)	Grease Retention Capacity (Pounds)
4	8
6	12
7	14
9	18
10	20
12	24
14	28
15	30
18	36
20	40
25	50
35	70
50	100
- Proper sizing to be approved by Stark County Health Department.	

22.05 Construction/Installation:

22.05.01 All permitting, construction, and inspection activities must be completed in accordance with the Ohio Plumbing Code. Additionally, the following specifications must be incorporated into grease interceptor design.

- 1) Commercial dishwashers must be properly designed, located, installed, and operated to prevent the introduction of detergents and/or high water temperatures capable of melting grease or causing grease to pass through the interceptor. Grease interceptors are to be installed at a minimum distance of 10 ft. from sinks and dishwashers to allow for adequate cooling of the wastewater. Water temperatures must be less than 140 degrees F prior to entering grease interceptor. This includes intermittent discharges from sink and equipment resulting from water change outs or end of shift cleaning.
- 2) All grease bearing waste streams should be routed through an appropriate grease interceptor, including, but not limited to: three-compartment sinks, pot/pan sinks, soup kettles, and dishwashers. Mop sinks and floor drains may be routed to the interceptor if grease waste is expected. Drains that receive "clear waste" only, such

as from ice machines, condensate from coils and drink station may be plumbed to the sanitary system without passing through the grease interceptor

- 3) All exterior grease interceptors will be equipped with a minimum of one twenty (20) inch diameter access hole, and additional access holes at the inlet and outlet sides of the tank for ease of cleaning. All interceptors shall be vented. Concrete interceptors must meet the latest version of ASTM C1613-10, Standard Specification for Precast Concrete Grease Interceptor Tanks. High Density Polyethylene (HDPE) Interceptors must meet the latest version of ASTM F2649 (latest revision) Standard Specification for Corrugated High Density Polyethylene (HDPE) Grease Interceptor Tanks. Interceptors constructed of other materials shall meet the applicable ASTM standard. The pipe exiting the grease interceptor shall be installed six (6) to twelve (12) inches from the bottom of the tank, rather than near the top of the tank, to eliminate the risk of tee/baffle removal or breakage, which would render the interceptor ineffective. The pipe shall be installed to maintain the correct water level within the tank and be equipped with clean-outs to allow for line maintenance in either direction of flow. (See appendix A.)

22.06 Cleaning and Maintenance

22.06.01 It is the responsibility of the Generator (customer) to ensure compliance with the limitations set forth in these rules and regulations. Grease interceptors must be operated and maintained in accordance with the manufacturer's recommendations and in accordance with these regulations, unless specified in writing and approved by the Sanitary Engineer.

- 1) Grease interceptors and sanitary lift stations shall be maintained in an efficient operating condition at all times.
- 2) Each grease interceptor or sanitary lift station wet well when cleaned shall be fully evacuated by removing all solids, wastewater and grease. Grease shall be removed from the interceptor walls and from the inlet and outlet pipes by pressure washing, physical scraping or other acceptable means. A report shall be generated each time the interceptor is cleaned or maintained.
- 3) No interceptor or sanitary lift station shall create a nuisance during operation or cleaning.
- 4) All reports must be submitted by the service provider via the Sanitary Engineer's web portal, FOGBMP, within 10 business days after cleaning or maintenance occurrences.
- 5) Self-Cleaning: Hydro-mechanical Grease interceptors only.
 - a) Grease interceptor self-cleaning operators may remove grease from their own grease hydro-mechanical grease interceptors. The following conditions shall apply:
 - aa) The grease interceptor is no more than 100 GPM size.
 - ab) Proper on-site material disposal methods are implemented (e.g. absorb liquid into solid form and dispose into trash).

- ac) The disposal methods do not create a nuisance and are done in accordance with law.
 - ad) Grease waste is placed in a leak proof, sealable container(s) located on the premises and in an area for the transporter to pump-out; and
 - ae) Detailed records on these activities are maintained.
- b) Grease interceptor self-cleaning operators must maintain a self-cleaning plan that meets cleaning schedule outlined in this regulation. The plan shall include the following information:
- ba) Business name and street address;
 - bb) Grease interceptor operator name, title, and phone number;
 - bc) Description of maintenance frequency, method of disposal, method of cleaning, and size (in gallons) of the grease interceptor; and
- c) A maintenance log (appendix B) shall be kept by self-cleaning operators that indicates, at a minimum, the following information:
- ca) Date the grease trap/interceptor was serviced;
 - cb) Name of the person or company servicing the grease trap/interceptor;
 - cc) Waste disposal method used;
 - cd) Gallons of grease removed and disposed of
 - ce) Waste oil added to grease interceptor waste and
 - cf) Signature of the operator after each cleaning that certifies that all grease was removed, disposed of properly, grease trap/interceptor was thoroughly cleaned, and that all parts were replaced and in operable condition.
- d) Violations incurred by grease interceptors' self-cleaners will be subject to enforcement action and may be required to contract with a grease removal service.

22.07 Cleaning Schedules

- 22.07.01 Grease interceptors shall be cleaned as often as necessary to ensure that sediment and floating materials do not accumulate to impair the efficiency of the grease interceptor; to ensure the discharge is in compliance with local discharge limits; and to ensure no visible grease is observed in discharge.

22.07.02 Grease interceptors shall be completely evacuated a minimum of every ninety (90) days or more frequently when:

- 1) Twenty-five (25) percent or more of the wetted height of the grease trap or grease interceptor, as measured from the bottom of the device to the invert of the outlet pipe, contains floating materials, sediment, oils or greases; or
- 2) The discharge exceeds BOD, COD, TSS, FOG, pH, or other pollutant levels established by the SCMSD; or
- 3) If there is a history of non-compliance.

22.07.03 Any person who owns or operates a grease interceptor may submit to the Sanitary Engineer's Office a request using the engineer's a variance form in writing for an exception to the ninety (90) day cleaning frequency of their grease interceptor. The Sanitary Engineer may grant an extension for required cleaning frequency on a case-by-case basis when:

- 1) The grease interceptor owner/operator has demonstrated the specific interceptor will produce an effluent, based on defensible analytical results, in consistent compliance with established local discharge limits such as BOD, TSS, FOG, or other parameters as determined by the Sanitary Engineer, or
- 2) Less than twenty-five (25) percent of the wetted height of the grease interceptor, as measured from the bottom of the device to the invert of the outlet pipe, contains floating materials, sediment, oils or greases.
- 3) In no case shall a grease interceptor be fully evacuated, cleaned, and inspected at an interval greater than once every one-hundred twenty (120) days.

22.08 Manifest Requirements

22.08.01 Each pump-out of a grease interceptor must be accompanied by the manifest provided in Appendix C for record keeping purposes. All pump-out reports must be submitted by the service provider via Sanitary Engineer's web portal, FOGBMP, within 10 business days.

22.08.02 Persons who generate, collect and transport grease waste shall maintain a record of each individual collection and deposit. Such records shall be in the form of a manifest. The manifest shall include:

- 1) Name, address, telephone of transporter;
- 2) Name, signature, address, and phone number of the person who generated the waste and the date collected.
- 3) Type and amount(s) of waste collected or transported.
- 4) Name and signature(s) of responsible person(s) collecting, transporting, and depositing the waste.

- 5) Date and place where the waste was deposited.
- 6) Identification (permit or site registration number, location, and operator) of the facility where the waste was deposited.
- 7) Name and signature of facility on-site representative acknowledging receipt of the waste and the amount of waste received.
- 8) The volume of the grease waste received and
- 9) A consecutive numerical tracking number to assist transporters, waste generators, and regulating authorities in tracking the volume of grease transported.

22.08.03 Manifests shall be divided into four parts and records shall be maintained as follows:

- 1) One part of the manifest shall have the generator and transporter information completed and given to the generator at the time of waste pickup.
- 2) The remaining four parts of the manifest shall have all required information completely filled out and signed by the appropriate party before distribution of the manifest.
- 3) One part of the manifest shall go to the receiving facility.
- 4) One part shall go to the transporter, who shall retain a copy of all manifests showing the collection and disposition of waste.
- 5) One copy of the manifest shall be returned by the transporter to the person who generated the wastes within 15 days after the waste is received at the disposal or processing facility.
- 6) Copies of manifests returned to the waste generator shall be retained for five years and be readily available for review by the Sanitary Engineer.

22.08.04 All grease interceptor waste shall be properly disposed of at a facility in accordance with federal, state, or local regulation.

22.09 Compliance Testing:

22.09.01 All testing designed to satisfy the criteria set forth in these regulations shall be scientifically sound and statistically valid. All tests to determine oil and grease, TSS, BOD, COD, pH, and other pollutant levels shall use appropriate test methods that have been approved by the Environmental Protection Agency which are defined in Title 40, Code of Federal Regulations, Part 136. Testing shall be open to inspection by the SCSE and shall meet the SCMSD's requirements.

22.10 Best Management Practices and Employee Training

22.10.01 BMP's. All Food Service Establishments shall implement the following Best Management Practices (BMPs) to minimize the discharge of FOG to the sewer system.

- 1) "Dry wipe" pots, pans, dishware and work areas before washing to remove grease.
- 2) Properly dispose of food waste and solids in enclosed plastic bags prior to disposal in trash bins or containers to prevent leaking and odors.
- 3) Use of absorption products to clean under fryer baskets and other locations where grease may be spilled or dripped.
- 4) Properly dispose of grease or oils from cooking equipment into a grease receptacle such as a barrel or drum without spilling.
- 6) Kitchen exhaust filters are to be cleaned as frequently as necessary to be maintained in good operating condition. The wastewater generated from cleaning the exhaust filter must be disposed properly through a grease interceptor or grease trap.

22.10.02 Service providers must register with the Sanitary Engineer's office and meet all requirements of Ohio Administrative Code 3701-29-03.

22.10.03 Kitchen signage. Best management and waste minimization practices shall be posted conspicuously in the food preparation and dishwashing areas at all times.

22.10.04 Training. The ownership / management shall train all employees of a food processing or food service facility on BMP's at least annually. Records of training sessions and any accompanying educational materials shall be retained by the waste generator for five years and be readily available for review by the SCSE.

22.10.05 All FSE's subject to these regulations shall register with and report to the sanitary engineer's web portal using FOGBMP at <https://bmpcomp.com/fog/>

- 1- FOGBMP shall serve as the official web portal for the sanitary engineers FOG program and the official means for:
 - a. Obtaining technical guidance, training and policies for food service BMP's.
 - b. Waste Haulers and FSE's to receive inspection reports.
 - c. Waste Haulers and FSE's to submit required reports, and upload records, certifications and other reports.
- 2- FSE's must maintain an active FOGBMP account and ensure that login credentials are accessible to one, on-site employee or manager at all times. New login credentials required by SCSE are to be made through and in collaboration with SCSE.

22.11 Prohibited Practices

22.11.01 No person shall introduce, or cause, permit, or allow the introduction of any surfactant, solvent or emulsifier into a grease interceptor. Surfactants, solvents, and emulsifiers are materials that allow the grease to pass from the grease interceptor into the collection system, and include but are not limited to enzymes, soap, diesel, kerosene, terpene, gasoline and other solvents. Additionally, hazardous wastes, such as acids, strong cleaners, pesticides, herbicides, or paint shall not be introduced into a grease interceptor.

22.11.02 No user may intentionally or unintentionally allow the direct or indirect discharge of any fats,

oils, or greases of animal or vegetable origin into the public sewer in such amounts as to cause interference with the collection and treatment system, or as to cause pollutants to pass through the treatment works into the environment.

22.12 Compliance Monitoring

22.12.01 Right of Access. The Sanitary Engineer's agents shall have the right to enter the premises of any generator or potential generator to determine whether the generator is complying with all requirements of this chapter and any wastewater discharge permit or order issued hereunder. Generators shall allow the Sanitary Engineer's agents ready access to all parts of the premises for the purposes of inspection, sampling, records examination and copying, and the performance of any additional duties.

- 1) Where a generator has security measures in force, which require proper identification and clearance before entry into its premises, the generator shall make necessary arrangements with its security guards so that, upon presentation of suitable identification, the Sanitary Engineer's agent will be permitted to enter without delay for the purposes of performing specific responsibilities.
- 2) The Sanitary Engineer shall have the right to set up on the generator's property or require installation of devices as are necessary to conduct sampling and/or metering of the generator's operations. The Sanitary Engineer's agents may also require the generator to install monitoring equipment as necessary, such as FOG sensing and alarm devices complying with PDI G102. The installation of all such devices shall be at the generator's expense. The facility's monitoring equipment shall be maintained at all times in a safe and proper operating condition by the generator at its own expense.
- 3) Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the generator at the written or verbal request of the Sanitary Engineer and shall not be replaced. The costs of clearing such access shall be borne by the generator.
- 4) Unreasonable delays in allowing the Sanitary Engineer's agents access to the generator's premises shall be a violation of this regulation.

22.12.02 Search Warrants. If the Sanitary Engineer's agent has been refused access to a building, structure, or property, or any part thereof, and is able to demonstrate probable cause to believe that there may be a violation of this chapter, then the Sanitary Engineer's may seek issuance of a search warrant.

22.13 Enforcement

22.13.01 The Board of County Commissioners finds that specific enforcement provisions must be adopted to govern discharges to the County's public sewer system by grease generators, to ensure that the County's sewer facilities are protected and are able to operate with the highest degree of efficiency, and to protect the public health and environment.

22.13.02 The Sanitary Engineer's agent will determine noncompliance with the provisions of this FOG control regulation through visual inspections, records review, sampling, and/or monitoring

of grease generators

- 1) If, through visual inspection, the generator is found to be out of compliance or cannot provide the documentation requested by the Sanitary Engineer's agent, the generator will be given 30 days to become compliant or to provide the requested documentation before it will be considered a violation.

22.13.03 When a generator is found to be in noncompliance with one or more of the provisions of this regulation, a written notice of violation (NOV) will be issued to the generator with a specified time frame to come into compliance. If the generator fails to properly address the causes and/or sources of the noncompliance, then the Sanitary Engineer may pursue additional enforcement options, including but not limited to:

- 1) Assess noncompliance fees to the generator. A generator determined to be in noncompliance with the provisions specified in this regulation shall pay a noncompliance fee. The purpose of the noncompliance fee is to compensate the County for costs of additional inspection and follow-up, clean up, sampling, monitoring, laboratory analysis, and administrative processing incurred as a result of the noncompliance. Any failure to submit required records will result in a \$50.00 fee for each week of noncompliance.
- 2) Compliance Schedule. SCSE may enter into a Compliance Schedule with a generator. A Compliance Schedule may contain terms and conditions including but not limited to requirements for installation of a grease control device and devices to facilitate sampling, immediate and regular pumping and maintenance of grease control device, submittal of drawings or reports, submittal of waste hauling records, implementation of best management and waste minimization practices, payment of fees, or other provisions to ensure compliance with this regulation. The SCSE shall not enter into a Compliance Schedule until such time as all amounts owed by the generator to the County, including user fees, noncompliance sampling fees, and/or other amounts due are paid in full, or an agreement for deferred payment secured by collateral or a third party, is approved by the SCSE.
- 3) Injunctive Relief. When the Sanitary Engineer finds that a user has violated or continues to violate any provision of this regulation, or order issued hereunder, or any other pretreatment standard or requirement, the Sanitary Engineer, through the Board of County Commissioners, may petition the Court of Common Pleas for the issuance of a temporary or permanent injunction, as appropriate, which restrains or compels the user to comply with the performance standards stated in this regulation, or order imposed under this regulation. The Sanitary Engineer may also seek such other action as is appropriate for legal and/or equitable relief, including a requirement for the user to conduct environmental remediation. A petition for injunctive relief shall not be a bar against or a prerequisite for taking any other action against a generator.
- 4) Terminate sewer service. After other means have failed to gain compliance, the Sanitary Engineer may terminate the generator's sewer service. All costs for physical termination, as well as costs for reinstating service, shall be paid by the generator or designee.

End of Chapter