

ARTICLE XIII

OIL AND GREASE CONTROL

SECTION 1 - GENERAL:

- A. A grease interceptor or grease trap shall be provided when, in the judgment of the District, necessary for the proper handling of liquid wastes containing grease or solids that may be harmful to, or cause obstruction of the District's wastewater collection system, or interfere with the operation of the District's treatment works. The District will determine, and substantiate its determination of, whether a grease interceptor or grease trap will be acceptable to the District to mitigate the potential harm. The District will generally recommend grease interceptors unless circumstances clearly indicate that a grease trap will be sufficient to mitigate the user's discharge of liquid wastes containing grease or solids.
- B. An adequate grease interceptor or grease trap shall be installed as required by the District on the wastewater drainage system from any non-residential customer conducting the preparation and/or sale of food to the general public, including but not limited to restaurants, cafes, fast food outlets, pizza outlets, delicatessens, sandwich shops, and any and all other kinds and types of food vending establishments in which any food preparation (including heating or defrosting in or by means of any kind of oven or heating device) takes place on the premises, whether or not such facilities are located in a separate building or structure that is occupied by other businesses, as well as schools, churches, boarding houses with communal kitchen facilities, nursing homes, and day care centers which have kitchens and engage in the preparation of food. The adequacy of the grease interceptor or grease trap shall be determined by compliance with the design, sizing, and other requirements of these Regulations and the District.
- C. All drains from the kitchen, food preparation, and dishwashing areas shall be connected to a grease interceptor or grease trap. Fixtures to be connected include, but are not limited to, scullery sinks, pot and pan sinks, dishwashing machines, soup kettles, and floor drains located in areas where grease containing materials may exist.
- D. When deemed necessary by the District, garbage disposals (garbage grinders) may be required to be connected to an approved grease interceptor.
- E. Connection of garbage disposals (garbage grinders) to grease traps will typically not be permitted.
- F. Toilets, urinals, and similar fixtures shall not discharge through a grease interceptor or grease trap. Such fixtures shall be plumbed directly into the building sewer and waste system.
- G. A variance from the requirement for a grease interceptor or grease trap on any non-residential structure may be granted after due consideration by the District for good cause shown including, without limitation, the particular hardship and unique circumstances of the user which are not brought about as a result of the user's acts or omissions. The granting of any variance shall be at the sole discretion of the District based upon the facts and circumstances of each request.

SECTION 2 - DEFINITIONS:

- A. For the purpose of this Regulation, the terms “grease interceptor” and “grease trap” shall be defined as follows:
1. Grease Interceptor: A unit of at least one thousand five hundred (1500) gallons capacity designed to retain grease from one or more fixtures and which shall be located remote from the fixtures being served, typically outside the building being served. This is the preferred unit of choice by the District.
 2. Grease Trap: A unit designed to retain grease from one (1) to a maximum of four (4) fixtures and which may be located inside the building being served. Generally, these types of units will not be permitted by the District.
 3. The smallest grease trap permitted shall have a minimum grease retention capacity of one hundred (100) pounds and shall provide a hydraulic retention time of at least fifteen (15) minutes at the design flow rate.
 4. No grease trap shall be installed which has a rated capacity of less than fifty (50) gallons per minute (gpm).
 5. The use of larger capacity grease traps is encouraged whenever possible in that larger traps work more efficiently. In resolving any question of capacity of the grease trap, any uncertainties shall be resolved in favor of the larger capacity grease trap.
- B. Fixture Unit Equivalent (FUE): A value which permits the comparison of different sized fixtures based on the drainage load produced.
1. One (1) FUE = Discharge flow rate of 7.5 gpm.

SECTION 3 - DESIGN AND SIZING:

- A. The design and sizing of grease interceptors and grease traps shall be in accordance with the International Plumbing Code (IPC) and this Regulation, and shall be designed, sized, installed, maintained and operated so as to accomplish their intended purpose of intercepting the grease and solids from the user’s wastewater and preventing the discharge of such grease and solids to the District’s wastewater treatment system.
- B. The applicable edition of the IPC shall be the edition currently utilized by the local building permitting authority at the time of design approval by the District.
- C. The size, type and location of each grease interceptor and grease trap shall be approved by the District, in accordance with these Regulations. Except where otherwise specifically permitted, no waste other than those requiring separation shall be discharged into any grease interceptors or grease traps. One set of plans, which shall include complete mechanical and plumbing sections shall be submitted to the District for approval prior to construction. Such plans shall include the size, type and location of each interceptor or trap. Such approval shall not exempt the user from compliance with any applicable code, ordinance, rule, regulation or order of any governmental authority. The District shall approve or deny the plans based on compliance with these Regulations and any policies or procedures promulgated by the Manager in accordance herewith. District approval shall not

be construed as or act as a guarantee or assurance that any discharge is or will be in compliance with any applicable code, ordinance, rule, regulation, or order or any governmental authority. Any subsequent alterations or additions to such facilities shall not be made without due notice to and prior approval of the District.

D. Design:

1. All waste shall enter the grease interceptor or grease trap through the inlet pipe only.
2. Grease interceptors and grease traps shall be designed and located so as to be readily accessible for cleaning and shall have a water seal of not less than six (6) inches for grease interceptors and two (2) inches or the diameter of the outlet, whichever is greater, for grease traps.
3. Grease interceptors shall be constructed in accordance with the design specifications contained herein, and as approved by the District and shall have a minimum of two (2) compartments with fittings designed for grease retention. There shall be a minimum of two (2) manholes to provide access for cleaning and inspection of all fixtures and compartments of the interceptor, a minimum of one (1) per ten (10) feet of interceptor length. In the case of smaller or circular interceptors, where it is not practical to install two (2) manholes, a single manhole shall be located so as to permit entrance to the first compartment, and inspection of the second. All areas of the second compartment shall be accessible for cleaning. Manhole covers shall be gastight in construction having a minimum opening dimension of twenty (20) inches. In areas where traffic may exist, the interceptor shall be designed to have adequate reinforcement and cover, meeting American Association of State Highway Transportation Officials (AASHTO) HS-20 load specifications.
4. Grease traps shall be equipped with a flow control or restricting device installed in a readily accessible and visible location ahead of the grease trap. Flow control devices shall be designed and rated such that the flow through such a device shall at no time be greater than the rated capacity of the grease trap. No flow control devices having adjustable or removable parts will be permitted.
5. A flow control device will not be required preceding a grease interceptor.
6. Grease interceptors and grease traps shall be designed so that they will not become air bound if closed covers are used. The tank and the discharge line shall each be vented, and the vents shall not tie together less than forty-two (42) inches above the tank lid elevation.
7. An effluent sampling box shall be provided on the discharge of each grease interceptor or grease trap where so required by the District.

E. Sizing Criteria:

1. Grease Interceptors: When determining the minimum size of grease interceptor required, the following shall be considered:
 - a. The minimum acceptable volume shall be not less than one thousand five hundred (1500) gallons.

- b. The size of the interceptor may be based on the maximum number of meals served at maximum periods of the day (either breakfast lunch or dinner). Volume, in gallons, of the interceptor shall be two and one-half 2 ½ gallons times the maximum number of meals served during the busiest period of the day.
- c. An alternate method of determining the size of the grease interceptor is to multiply seating capacity times a turnover constant of one and six-tenths (1.6) times two and one-half (2 ½) gallons. Seating capacity can be approximated, using ten (10) square feet of dining area per person. (VOLUME = Seating Capacity x 1.6 x 2.5 gallons.)
- d. The size of the grease interceptor may be determined by the following formula:

Interceptor size (liquid capacity in gallons) = number of meals served per peak hour X waste flow rate X retention time X storage factor

i. Meals served per peak hour to be estimated as follows: Seating capacity X occupancy factor (0.80) X meals per hour per seat.

ii. Waste flow rate:

With dishwashing machine	6 gallons
Without dishwashing machine	5 gallons
Food waste disposal	1 gallon

iii. Minimum Retention time: 1.0 hours

iv. Storage Factor:

Fully equipped commercial kitchen:

8-hour operation	1
16-hour operation	2
24-hour operation	3

Single service kitchen: 1.5

- e. An appropriate volume may be determined by multiplying the total rate of flow in gallons per minute from each fixture required to be connected to the interceptor times a minimum retention time of not less than fifteen (15) minutes, the resulting volume expressed in gallons.

2. Grease Traps: Grease traps shall be sized based on one of the following methods:

- a. Fixture Capacity Method: Under this method, the physical size of each fixture compartment to be connected to the grease trap shall be measured and the capacity determined. The drainage load in gallons shall then be computed assuming the drainage load to be equal to seventy-five hundredths (0.75) times the total physical capacity. The sum of the drainage loads for each fixture compartment to be connected to a single grease trap will be the total grease trap

drainage load. The total grease trap drainage load is then divided by the drainage period for the fixture compartments connected to determine the flow rate to the grease trap in gallons per minute (gpm). Multiply the grease trap flow rate thus determined, or the rated capacity of the flow control device, by the minimum retention time (fifteen (15) minutes) to determine the required liquid capacity of grease trap to be installed.

- b. Fixture Unit Method: Under this method the fixture compartment outlet or trap arm size shall be utilized to determine the fixture compartment drainage load in gpm, assuming one (1) fixture unit equivalent produces a flow rate of seven and five-tenths gallons per minute (7.5 gpm). The sum of the drainage loads for each fixture compartment to be connected to a single grease trap or the rated capacity of the flow control device will be the total grease trap drainage load in gallons per minute (gpm). Multiply this total drainage load by the minimum retention time (fifteen (15) minutes) to determine the required liquid capacity of the grease trap to be installed.

- (1) The following fixture unit equivalent values shall be utilized when sizing grease traps under the Fixture Unit Method:

Fixture Outlet, Trap or Trap Arm Size	Fixture Unit Equivalent Value
1-1/4"	1
1-1/2"	3
2"	4
2-1/2"	5
3"	6
4"	8

- (2) Selection of the appropriate size for a grease trap is dependent on the drainage period of the fixtures connected to the trap. By adjusting the fixture drainage period through use of a flow control device, (a) a smaller grease trap could be utilized for a given fixture size or capacity; (b) multiple fixtures could be connected to the same grease trap.
- (3) Where the required grease trap size would exceed that which is commercially available, either multiple grease traps shall be installed in parallel, or a grease interceptor shall be utilized.

SECTION 4 - INSTALLATION:

- A. The installation of grease interceptors and grease traps shall be in accordance with the International Plumbing Code (IPC) and these Regulations and shall be accomplished in a workmanlike manner in compliance with the design and sizing requirements hereunder.
- B. The applicable edition of the IPC shall be the edition currently utilized by the local building permitting authority at the time of installation.
- C. The installation of grease interceptors and grease traps shall be accomplished by licensed plumbers with documented experience in the installation of such devices.
- D. Each grease interceptor and grease trap shall be readily accessible for inspection, servicing,

and maintaining in proper working condition. Grease interceptors and grease traps shall be deemed inaccessible if ladders must be used or bulky equipment must be removed in order to inspect or service the interceptors or traps. Where feasible, all interceptors shall be located outside of the facility served. Interceptors may not be installed in any part of a building where food is handled. The location of all interceptors and traps shall be approved by the District and shall be shown on the approved building plan.

- E. No dishwasher shall be connected to or discharge into any grease interceptor or grease trap of less than one thousand five hundred (1,500) gallons capacity which is utilized by other fixtures. Automatic dishwashing units shall be plumbed through their own properly sized grease interceptor, properly sized grease trap or directly into the building sewer and waste system.
- F. No food grinder or disposal unit shall be connected to or discharged into any grease trap. Such units shall be plumbed through a properly sized grease interceptor or directly into the building sewer and waste system.
- G. All fixtures not equipped with a garbage disposal (garbage grinder) which are connected to a grease interceptor shall be equipped with a fixed or removable mesh or screen which shall catch garbage and food debris and prevent it from entering the grease interceptor.
- H. Waste in excess of one hundred forty (140) degrees Fahrenheit shall not be discharged into a grease interceptor or grease trap, and liquid discharge from a grease interceptor or grease trap shall not exceed seventy (70) degrees Fahrenheit.

SECTION 5 - MAINTENANCE:

- A. Maintenance of grease interceptors and grease traps shall be done only by a business/professional normally engaged in the servicing of such plumbing fixtures. An individual property owner will not be permitted to accomplish maintenance specified by this Regulation.
- B. The District shall provide a user and/or a maintenance business with a form for recording grease interceptor/grease trap maintenance. The user shall, or shall cause the maintenance business to, provide one copy of the completed form to the District immediately following accomplishment of maintenance of any grease interceptor or grease trap within the District.
- C. As a minimum, any grease interceptor in service in the District shall be serviced at a maximum interval of one hundred twenty (120) days.
- D. A variance from this requirement may be obtained if the user can confirm that there is no normal use during any given one hundred twenty (120) calendar day period.
- E. The District may inspect the interceptor and outlet, and if it is deemed necessary by the District, more frequent servicing and maintenance will be required.
- F. As a minimum, any grease trap in service in the District shall be serviced at a maximum interval of thirty (30) days.
- G. A variance from this requirement may be obtained if the user can confirm that there is no normal use during any given thirty (30) calendar day period.

- H. The District may inspect the trap and outlet and if it is deemed necessary by the District, more frequent servicing and maintenance will be required.
- I. Biological treatment shall not be a substitute for the plumbing of grease interceptors and grease traps at the frequency determined by the District. Emulsification of oil and grease with enzyme treatments only delays physical separation. Oil and grease may then separate down stream and cause clogging problems in the collection system. A grease interceptor and grease trap using biological treatment requires continuous monitoring, maintenance, and inoculation of the bacterial cultures.
- J. The District may inspect grease interceptors and grease traps monthly to determine the load on the fixture and the effectiveness of maintenance activities. The District will inventory all grease interceptors and grease traps in its service area and document the inspections of these interceptors and traps.
- K. These inspections may determine that more frequent maintenance than previously specified is required.
- L. Existing sources not connected to a grease interceptor or grease trap and contributing oil and grease to the District's waste stream and collection system will be identified through the District's inspection program. Once these sources are identified, they will be required to install a grease interceptor or grease trap and maintain it according to these Regulations. In the time before a grease interceptor or grease trap can be installed the District will require such businesses to implement Best Management Practices (BMPs) to keep oil and grease out of the sanitary sewer system, such as:
 - 1. Scrape food from plates into garbage cans.
 - 2. Pre-wash plates by spraying them off with cold water over a small mesh catch basin positioned over a drain. This catch basin should be cleaned into a garbage receptacle as needed.
 - 3. Pour all liquid oil and grease from pots into waste grease bucket stored at the pot washing sink. Heavy solid build-up of oil and grease on pots and pans should be scraped off into a waste grease bucket.
 - 4. Other kitchen practices identified by the District and/or facility which will decrease the point source discharge of oil and grease.

SECTION 6 - RESPONSIBILITY, FINES AND RETRIBUTION:

- A. Property owners and lessees shall be jointly and severally responsible for cleaning grease interceptors and grease traps for maintaining the grease interceptors and grease traps in efficient operating condition at all times, and for otherwise complying with the provisions of these Regulations. Grease interceptors and grease traps shall be maintained by regularly scheduled removal of the accumulated grease and solids so that they will properly operate as intended to intercept the grease and solids from the customer's wastewater and prevent the discharge of grease and solids to the District's wastewater treatment plant. This maintenance shall be performed in a workmanlike manner before the retention capacity of the interceptor or trap is exceeded. Detailed and accurate records of maintenance shall be maintained on-

site and shall be provided to and available to the District upon request. Such maintenance records shall be in the form of Exhibit A attached hereto, or such other form as reasonably required from time to time by the Manager.

- B. The District reserves the right to levy any fines to such facilities that do not conform to the District's Regulations. Restitution shall be paid by the non-compliant user to any surrounding businesses and/or homeowners for damage resulting from any non-compliance of the District's Regulations. Any extraordinary cost incurred by the District due to interference, damage, or special processing necessary in the treatment and/or collection system shall be paid by the user. The direct cost of all labor, equipment and materials incurred in rectifying the interference or damage shall be billed directly to the user by the District.

SECTION 7 - SEWER USE REGULATIONS:

Any violation of these Regulations related to grease interceptors and grease traps shall be considered a discharge violation under the enforcement provisions of Article XII of the Regulations. Compliance with these Regulations shall be the joint and several obligations of the owner of the property served and any party in possession of the property using the wastewater services of the District. Any monies due or penalties to the District under the provisions of these Regulations shall constitute a lien upon the property served.

ARTICLE XIV
EFFECTIVE DATE

SECTION 1 - EFFECTIVE DATE:

These Sewer Use Regulations were approved by resolution of the Board of Directors on February 8, 2024, Resolution No. 2024-03, and shall be in full force and effect on the 9th day of February, 2024 (“Effective Date”).

SECTION 2 - SUPERSEDE PRIOR SEWER USE REGULATIONS

These Regulations supersede and completely replace the former Sewer Use Regulations of Fountain Sanitation District, and any amendments thereto, in effect prior to the Effective Date.

ENACTED this 8th day of February, 2024.

BOARD OF DIRECTORS
FOUNTAIN SANITATION DISTRICT
FOUNTAIN, COLORADO