

Attachment A

Grease Control Device Sizing and Operational Guidelines

Grease Control – General

All FSEs that discharge more than a de minimis amount of FOG in their wastewater sent to the sewer system must install a FOG control device that meets City standards and specifications. Restaurants and other food service establishments that discharge a de minimis amount of FOG are those engaged only in reheating, hot holding, assembly, or mixing of ready-to-eat food products. For FSEs that discharge more than a de minimis amount of FOG, fixtures/items that should discharge to grease control equipment include:

1. All working sinks in any food or drink area: 3-compartment, prep, vegetable, trash can wash, etc. ('alcohol only' bar sinks excluded);
2. All floor drains and floor sinks in any food or drink area to include storage areas;
3. All mop sinks in any food, drink or kitchen area;
4. Pre-rinse sink separated from the automatic dishwasher; and
5. Potentially hand sinks (to be reviewed if in a food service area).

At no time will any restroom drain or fixture be connected to the grease waste system. Dishwashing machines and food waste disposal units shall not drain to a grease control device, unless the FSE can document that the volume and temperature of wash water and rinse water discharged, in combination with any detergent, soap, and/or disinfectant in the water, will not render the trap ineffective.

Exceptions to the requirements for installation of a grease control device shall be determined on a case-by-case basis by the Director. The Director shall take into account the following items when determining exceptions: size of facility; meals served per day; seating capacity; dishwashing and garbage disposal facilities on-hand; and any other criteria the Director deems applicable.

Grease Traps

Grease traps are used in treating commercial kitchens drainage systems with small volumes of wastewater. FSEs that shall install grease traps may include delis, ice cream shops, beverage bars, day care facilities, and coffee shops that discharge more than a de minimis amount of FOG to the sanitary sewer.

The sizing and installation of grease traps shall conform to the current edition of the California Plumbing Code. Not more than four (4) separate fixtures shall be connected to or discharged into any one (1) grease trap. In general, appropriate grease trap sizing shall conform to the following:

Table 1: Grease Trap Sizing

# of Connected Fixtures	Required Rate of Flow (gallons per minute - gpm)	Grease Retention Capacity (pounds)
1	20	40
2	25	50
3	35	70
4	50	100

FSEs with grease traps shall implement the following:

1. Grease traps must meet the appropriate Plumbing Drainage Institute (PDI)/American Society of Mechanical Engineers (ASME) or equivalent certification, and be installed as per manufacturer’s specifications.
2. Grease traps shall be installed such that the trap, trap fixtures, and the area(s) immediately surrounding the trap shall be accessible for cleaning and other purposes.
3. Grease traps shall be maintained free of all food residues and any FOG waste removed during the cleaning and scraping process.
4. Grease traps shall be maintained in efficient operating conditions by regularly removing accumulated grease.
5. Grease traps shall be inspected periodically to check for leaking seams and pipes, and for effective operation of the baffles and flow-regulating device.
6. Grease traps and their baffles shall be maintained free of all caked-on FOG and waste.
7. Removable baffles shall be removed and cleaned during the maintenance process.

Grease Interceptors

Grease interceptors are mainly used in treating kitchen wastewater from FSEs and other similar institutions with larger volumes of wastewater. Influent to grease interceptors usually contain high organic loads, including FOG and dissolved particles, as well as detergents and suspended solids. FSEs that shall install grease interceptors may include limited-service restaurants (e.g., fast food facilities, day care facilities, drive-in, carry-out), caterers, full-service restaurants, buffet and cafeteria facilities, and institutions (e.g., schools, hospitals, nursing homes, prisons).

The sizing and installation of grease interceptors shall conform to the current edition of the California Plumbing Code. Grease interceptors must meet the appropriate Plumbing Drainage Institute (PDI)/American Society of Mechanical Engineers (ASME) or equivalent certification, shall be installed according to manufacturer’s specifications, and comply with current local, state, and federal requirements. It shall be placed as close as practical to the fixture(s) being served, and be located where it is easily accessible at all times for inspection, cleaning, and removal of accumulated grease. If possible, grease interceptors should not be installed in “drive-thru” lanes.

In general, appropriate grease interceptor sizing shall conform to the following minimums:

Table 2: Grease Interceptor Sizing

Type of Facility	Minimum Grease Interceptor Total Capacity (gallons)
Limited-Service, Carry-Out, No Cooking (e.g., sandwich shops, delis, small bakeries and coffee/donut shops)	300
Limited-Service, Carry-Out, Cooking (e.g., major fast-food establishments, medium bakeries and coffee/donut shops)	700
Full-Service Restaurant, Sit-down, without dishwasher and food disposal unit	1,000
Full-Service Restaurant, Sit-down, with dishwasher and/or food disposal unit	1,500
Buffets, Cafeteria Facilities, and Institutions (e.g., schools, hospitals, nursing homes, prisons)	2,000

To achieve the required grease interceptor total capacity, multiple interceptors may be installed in series (i.e., facilities are not required to install a single-unit interceptor that meets the grease interceptor total capacity).

To calculate the appropriate size grease interceptor, the FSE's engineer, architect, and/or licensed plumber or contractor should use a formula that considers all cooking and food preparation equipment, all kitchen plumbing fixture units, the discharge plumbing pipe for each fixture unit, storage capacity, type of facility, and an adequate retention time (where the minimum acceptable retention time through the grease interceptor should be at least 30 minutes). The interceptor(s) must meet the minimum acceptable total capacity as listed in Table 2. Escalation above the minimum grease interceptor size shall take into consideration the size of the facility, including maximum units of production, number of meals served per peak hour, and facility seating capacity.

Access to each grease interceptor shall be provided by a manhole over the inlet and a manhole over the outlet. There shall also be an access manhole for each 10 feet of length for interceptors over 20 feet long. Manholes shall extend to grade, have a minimum size of 24 inches diameter or square opening, and shall have a gasket cover at grade. The inlet and outlet shall have a baffle tee or similar flow device with a minimum cross-sectional area equal to the required cross-sectional area of the inlet. Each baffle shall extend from at least 4 inches above the liquid level to within at least 12 inches of the inside floor of the interceptor. Adequate partitions or baffles shall extend at least 6 inches above the liquid level. Flow from inlet compartment to outlet compartment shall be through a quarter bend, or similar device equivalent in cross sectional area to the inlet into the interceptor, and shall extend down to within 12 inches of the inside floor. The inlet, outlet and main baffle shall have a free vent area equal to the required cross-sectional area of the inlet pipe. Grease interceptors that are installed in series shall be installed in such a manner to ensure positive flow between the tanks at all times.