**1014.1.1** Each fixture discharging into a grease interceptor shall be individually trapped and vented in an approved manner.

1014.1.2 All grease interceptors shall be maintained in efficient operating condition by periodic removal of the accumulated grease and latent material. No such collected grease shall be introduced into any drainage piping or public or private sewer. If the Authority Having Jurisdiction determines that a grease interceptor is not being properly cleaned or maintained, the Authority Having Jurisdiction shall have the authority to mandate the installation of additional equipment or devices and to mandate a maintenance program.

1014.1.3 Food Waste Disposal Units and Dishwashers. Unless specifically required or permitted by the Authority Having Jurisdiction, no food waste disposal unit or dishwasher shall be connected to or discharge into any grease interceptor. Commercial food waste disposers shall be permitted to discharge directly into the building's drainage system.

# 1014.2 Hydromechanical Grease Interceptors.

1014.2.1 Each plumbing fixture or piece of equipment connected to a hydromechanical grease interceptor shall be provided with an approved type of vented flow control installed in a readily accessible and visible location. Flow control devices shall be designed and installed so that the total flow through such device or devices shall at no time be greater than the rated flow of the grease interceptor. No flow-control device having adjustable or removable parts shall be approved. The vented flow-control device shall be located such that no system vent shall be between the flow-control and the grease trap inlet. The vent or air inlet of the flow-control device shall connect with the sanitary drainage vent system, as elsewhere required by this code, or shall terminate through the roof of the building, and shall not terminate to the free atmosphere inside the building.

Exception: Listed grease interceptors with integral flow controls or restricting devices shall be installed in an accessible location in accordance with the manufacturers' instructions.

1014.2.2 The total capacity in gallons (L) of fixtures discharging into any hydromechanical grease interceptor shall not exceed two and one-half (2-1/2) times the certified GPM (L/s) flow rate of the interceptor as per Table 10-2.

For the purpose of this section, the term "fixture" shall mean and include each plumbing fixture, appliance, apparatus, or other equipment

required to be connected to or discharged into a grease interceptor by any provision of this section.

**1014.2.3** A vent shall be installed downstream of hydromechanical grease interceptors in accordance with the requirements of this code.

Table 10-2
Hydromechanical Grease Interceptor (HGI)
Sizing Chart\*

GENG CHAIL		
DFU	HGI FLow (gpm)	
8	20	
10	25	
13	35	
20	50	
35	<i>7</i> 5	
172	100	
216	150	•
342	200	
428	250	
576	350	
<b>7</b> 20	500	

<sup>\*</sup>Based on intermittent potentially full flow in drainage lines.

1014.3 Gravity Grease Interceptors. Required gravity grease interceptors shall comply with the provisions of Sections 1014.3.1 through 1014.3.7.

#### 1014.3.1 General.

The provisions of this section shall apply to the design, construction, installation, and testing of commercial kitchen gravity grease interceptors.

# 1014.3.2 Waste Discharge Requirements.

1014.3.2.1 Waste discharge in establishments from fixtures and equipment which may contain grease, including but not limited to, scullery sinks, pot and pan sinks, dishwashers, soup kettles, and floor drains located in areas where grease-containing materials may exist, may be drained into the sanitary waste through the interceptor when approved by the Authority Having Jurisdiction.

**1014.3.2.2** Toilets, urinals, and other similar fixtures shall not drain through the interceptor.

**1014.3.2.3** All waste shall enter the interceptor through the inlet pipe only.

## 1014.3.3 Design.

1014.3.3.1 Gravity Interceptors shall be

# 1015.3 Components, Materials, and Equipment.

FOG disposal systems, including all components, materials, and equipment necessary for the proper function of the system, shall comply with sections 301.1.3 or 301.2 of this code.

#### 1015.4 Sizing Application and Installation.

FOG disposal systems shall be engineered, sized, and installed in accordance with the manufacturers' specifications and as specified in IAPMO PS 118-2000, as listed in Chapter 14, Table 14-1 of this code.

#### 1015.5 Performance.

FOG disposal systems shall be tested and certified as described in IAPMO PS 118-2000, as listed in Chapter 14, Table 14-1 of this code, and other national consensus standards applicable to FOG disposal systems as discharging no more than 100mg/L FOG.

1015.6 [For OSHPD 1, 2, 3 & 4] Grease traps shall not be installed in food preparation area of the kitchens.

1015.7 [For OSHPD 1, 2, 3 & 4] Grease Interceptors shall be installed outside of the kitchen area in location affording ease of maintenance and servicing.

#### Gravity Grease Interceptor Sizing Example:

Given: A restaurant with the following fixtures and equipment.

one food preparation sink; three floor drains - one in the food prep area, one in the grill area, and one receiving the indirect waste from the ice machine; a mop sink; a dishwasher with a maximum discharge flow rate of 20 gpm discharging into a dedicated receptor; and two public restrooms, each with one water closet and one lavatory.

Kitchen Drain Line DFU Count (from Table 7-3):

3 floor drains @ 2 DFUs each =	6 DFUs
Mop sink @ 3 DFUs each =	3 DFUs
Food prep sink @ 3 DFUs each =	3 DFUs
Dishwasher @ 4 DFUs (Table 7-4) =	4 DFUs
Total .	16 DFUs

Using Table 10-3, the grease interceptor will be sized at 750 gallons.

# 1016.0 Sand Interceptors.

#### 1016.1 Where Required.

1016.1.1 Whenever the discharge of a fixture or drain may contain solids or semi-solids heavier than water that would be harmful to a drainage system or cause a stoppage within the system, the discharge shall be through a sand interceptor. Multiple floor drains may discharge into one sand interceptor.

1016.1.2 Sand interceptors are required when-

ever the Authority Having Jurisdiction deems it advisable to have a sand interceptor to protect the drainage system.

#### 1016.2 Construction and Size.

Sand interceptors shall be built of brick or concrete, prefabricated coated steel, or other watertight material. The interceptor shall have an interior baffle for full separation of the interceptor into two (2) sections. The outlet pipe shall be the same size as the inlet pipe of the sand interceptor, the minimum being three (3) inches (80 mm), and the baffle shall have two (2) openings of the same diameter as the outlet pipe and at the same invert as the outlet pipe. These openings shall be staggered so that there cannot be a straight line flow between any inlet pipe and the outlet pipe. The invert of the inlet pipe shall be no lower than the invert of the outlet pipe.

The sand interceptor shall have a minimum dimension of two (2) feet square (0.2 m²) for the net free opening of the inlet section and a minimum depth under the invert of the outlet pipe of two (2) feet (610 mm).

For each five (5) gallons (18.9 L) per minute flow or fraction thereof over twenty (20) gallons (75.7 L) per minute, the area of the sand interceptor inlet section is to be increased by one (1) square foot (0.09 m²). The outlet section shall at all times have a minimum area of fifty (50) percent of the inlet section.

The outlet section shall be covered by a solid removable cover, set flush with the finished floor, and the inlet section shall have an open grating, set flush with the finished floor and suitable for the traffic in the area in which it is located.

1016.3 Separate Use. Sand and similar interceptors for every solid shall be so designed and located as to be readily accessible for cleaning, shall have a water seal of not less than six (6) inches (152 mm), and shall be vented.

#### 1017.0 Oil and Flammable Liquid Interceptors.

1017.1 Interceptors Required. All repair garages and gasoline stations with grease racks or grease pits, and all factories that have oily, flammable, or both types of wastes as a result of manufacturing, storage, maintenance, repair, or testing processes, shall be provided with an oil or flammable liquid interceptor that shall be connected to all necessary floor drains. The separation or vapor compartment shall be independently vented to the outer air. If two (2) or more separation or vapor compartments are used, each shall be vented to the outer air or may connect to a header that is installed at a minimum of six (6) inches (152 mm) above the spill line of the lowest floor drain and vented independently to the outer air. The minimum size of a flammable vapor



# CALISTOGA BUILDING DIVISION POLICIES, PROCEDURES & INTERPRETATIONS

NO. 2009-01

Enacted by: Brad Cannon, Building Official

Approved by: Board of Appeals

Date Approved: TBD

Subject: GREASE INTERCEPTORS

## A. BACKGROUND AND PURPOSE:

Historically grease traps or interceptors have been required by the City of Calistoga's Municipal Code Section 13.08.425 and the California Plumbing Code currently under Section 1014.0 "Grease Interceptors". CMC Section 13.08.425 offers an exception for smaller capacity grease traps implementing a daily monitoring program.

The 2007 California Plumbing Code (CPC) deletes the term "grease trap" and replaces it with Hydromechanical grease interceptor.

#### B. POLICY:

The CPC refers to all grease removal devices and or systems as grease interceptors to include the following:

- Gravity Grease Interceptors (normally exterior)
- Hydromechanical grease interceptors (normally interior)
- Grease Removal Systems (large engineered systems)
- Grease Removal Services (smaller engineered skimmers)
- Grease Interceptors (clarifier)

## Code Application

The City of Calistoga has adopted the 2007 California Plumbing Code, Chapter 10 Grease Interceptors.

# Sizing Criteria

The following criteria are used to determine the size of an interceptor:

- Number of meals being served
- Seating capacity
- Volume of wastewater being discharged
- Retention time and storage factor ratings
- Type of foods being prepared (cooked versus uncooked)
- Disposable or washable dishware

# GREASE INTERCEPTORS POLICY, PROCEDURE & INTERPRETATION NO 2009-01

- Type of food service facility (fast food, sit down restaurant, cafeteria)
- Frequency of maintenance or lack thereof
- Accessibility of installation

# Marking and Identification

Grease interceptors shall be permanently and legibly marked as follows:

- Manufacturer's name of trademark
- Model number
- Product listing number (IAPMO), including certification mark with registration ®

### Remodels and Alterations

When remodels and alterations are proposed for existing restaurants or similar food establishments, they shall be retrofitted with interceptors according to the new demands.

### General

It is the responsibility of the owner or operator of the commercial food service or processing establishment to maintain the interceptors in a sanitary, safe, and efficient operating condition; this includes for the periodic inspection and removal of the accumulated grease and other waste contained in the interceptor.