

FILE NO.

## LEGISLATIVE DIGEST

[Establishment of regulatory controls for the discharge of fats, oils and grease into sewers.]

**Ordinance amending Article 4.1 of the San Francisco Public Works Code by adding sections 140 – 140.7 to provide prohibitions, limitations and requirements for the discharge of fats, oils and grease into the City’s sewerage system by food service establishments.**

### Existing Law

As the operator of a large sewer system, the City and County of San Francisco is required by state and federal law to prevent system overflows, and to regulate and control the discharge of industrial wastes into the system in order to protect the system, increase operational efficiency, comply with pollutant minimization requirements, and facilitate compliance with wastewater discharge limits. The "Industrial Waste Ordinance," codified as Article 4.1, provides the authority to implement such controls sections 118 – 139, of the San Francisco Public Works Code. This ordinance prohibits the discharge of grease and oil into the City's sewerage system in excess of a specified limit. The Industrial Waste Ordinance also provides comprehensive general administrative authority to manage the controls program, regarding permit issuance, inspection, monitoring, reporting, enforcement and penalties.

### Amendments to Current Law

The proposed amendments to the Industrial Waste Ordinance authorize additional controls for the discharge of fats, oils and grease into the sewerage system by food service establishments. Sections 140 – 140.7 add to Article 4.1 the following provisions:

1. Definitions specifically applicable to the discharge and control of fats, oils and grease.
2. General prohibitions and limitations to ensure proper operation of any type of grease capturing equipment and to prohibit disposal of fats, oils and grease into the sewer system.
3. General requirements that direct food service establishments to operate, service and maintain all grease capturing equipment in accordance with the Ordinance; to

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**FILE NO.**

properly manage fats, oils and grease diverted from wastewater discharges; to implement best management practices to control fats, oils and grease discharges; and to obtain required permits.

4. Requirements specifying which Fats, Oils and Grease Discharger Categories shall install automatic Grease Removal Devices (GRDs).
5. Requirements to effectively maintain and operate grease removal devices and to implement applicable Best Management Practices.

Background Information

Restaurants and other Food Service Establishments (FSEs), such as catering kitchens, are already regulated under current local codes which set a limit on the amount of grease they can discharge into City sewers. They are also required by local plumbing codes to install grease traps or interceptors. In spite of current local code requirements, the San Francisco Public Utilities Commission (SFPUC) spends approximately \$3.5 million a year addressing grease clogged sewer mains and laterals, and over 40% of sewer service work orders are related to issues with grease in the sewer system.

The SFPUC estimates that there are approximately 3,000 food service establishments that have cooking operations which would result in their having fats, oils and grease in their wastewater discharges. SFPUC staff has identified the following as the central reasons that current local regulations are not as effective as they need to be to control grease discharges into the sewer system:

1. Many food service establishments that have grease capturing equipment that is not well maintained or serviced and therefore does little to remove grease from wastewater discharges;
2. Many food service establishments that have no grease capturing equipment at all. The SFPUC estimates that over 50% of food service establishments that in San Francisco may not have grease capturing equipment in place;
3. Grease traps and interceptors, once installed, are not routinely inspected by any City department for proper servicing and maintenance; and,
4. It is financially prohibitive for the City to sample the discharge of every establishment to ensure that grease discharges are below the local discharge limit.

The above factors underscore the need for improvements to the industrial waste program to ensure that food service establishments have effective pre-treatment equipment in place to capture and divert grease.

**FILE NO.**

The proposed Fats, Oils and Grease (FOG) Control Ordinance will complement existing local requirements by:

- Establishing clear requirements for servicing and maintenance of all grease capturing equipment.
- Requiring or encouraging the use of more modern and effective grease capturing equipment (automatic grease removal devices or “GRDs”); and

The proposed FOG Control Ordinance allows food service establishments to keep their existing grease capturing equipment if it is operational and adequately serviced. The proposed Ordinance, however, addresses the fact that modern technology for grease removal from wastewater has surpassed the controls contemplated when the current Industrial Waste Ordinance was adopted in 1992. The industry now has three widely-recognized options: hydromechanical grease interceptors ("grease traps"), gravity grease interceptors ("grease interceptors"), and automatic grease removal devices (or automatic “GRDs”).

- **Hydromechanical grease interceptors** (or “traps”) are the least expensive and most common technology, yet they are problematic because they must be cleaned daily or weekly to maintain effectiveness. The SFPUC’s experience is that many establishments do not regularly clean them because it is unpleasant and, therefore, unacceptable amounts of FOG still get discharged into the sewer system.
- **Gravity grease interceptors** (or “interceptors”), the second most used technology, are very effective, but they are also very expensive and generally are too large to work for the majority of FSEs in San Francisco. By definition, they are 300 gallons or more in capacity/size and are generally installed underground outdoors (ex: under a parking lot).
- **Automatic grease removal devices** (or “automatic GRDs”) are the newest technology. They automatically, mechanically separate out food particles and skim waste fats, oils and grease from the wastewater discharges. They are middle-range in cost and more pragmatic due to automation and less-offensive maintenance procedures.

The proposed Ordinance defines four FOG Discharger Categories, which will each reflect the likely risk of a food service establishment to discharge grease into the collection system (based on cooking equipment and fixtures and the status of their existing grease capturing equipment, if any). Each food service establishment will be assessed by SFPUC wastewater inspectors and then assigned the applicable FOG Discharger Category. The proposed ordinance will require that those establishments which generate significant grease in their kitchens, but have no grease capturing equipment, install automatic Grease Removal Devices. All food service establishments, including those with existing grease capturing equipment, will be required to properly service and maintain their equipment.

1 [Establishment of regulatory controls for the discharge of fats, oils and grease into sewers.]

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3 **Ordinance amending Article 4.1 of the San Francisco Public Works Code by adding**  
4 **sections 140 – 140.7 to provide prohibitions, limitations and requirements for the**  
5 **discharge of fats, oils and grease into the City’s sewerage system by food service**  
6 **establishments.**

7 Note: Additions are *single-underline italics Times New Roman*;  
8 deletions are ~~*strikethrough italics Times New Roman*~~.  
9 Board amendment additions are double underlined.  
Board amendment deletions are ~~strikethrough normal~~.

10 Be it ordained by the People of the City and County of San Francisco:

11 Section 1. Environmental Findings. The Planning Department has determined that the  
12 actions contemplated in this Ordinance are in compliance with the California Environmental  
13 Quality Act (California Public Resources Code sections 2100 et seq.). Said determination is  
14 on file with the Clerk of the Board of Supervisors in File No. \_\_\_\_\_ and is incorporated  
15 herein by reference.

16 Section 2. The San Francisco Public Works Code is hereby amended by adding to  
17 Article 4.1, Sections 140 – 140.7, to read as follows:

18 **Section 140. Control of Fats, Oils and Grease**

19 a. Sections 140 - 140.7 of this Article provide requirements for the control of the  
20 discharge of fats, oils and grease to the City's sewerage system. Large quantities  
21 of fats, oil and grease that are discharged from commercial and residential kitchens  
22 contribute to blockages in the City's sewerage system. The resulting clogs in sewer  
23 pipes cost the City millions of dollars each year in grease removal and sewer repair  
24 costs, and result in the overall degradation of the City's sewer infrastructure.

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- 1           b. This Article facilitates implementation of a comprehensive pollution prevention  
2           program to keep fats, oils and grease out of the City's sewer system, and  
3           compliance with the City's current Clean Water Act National Pollutant Discharge  
4           Elimination System (NPDES) permits and the Sanitary Sewer Overflow Waste  
5           Discharge Requirements (WDRs) permit, which are issued by the San Francisco  
6           Bay Regional Water Quality Control Board and the United States Environmental  
7           Protection Agency (US EPA).
- 8           c. The US EPA promotes the development of fats, oils and grease control programs  
9           throughout the country because approximately 40,000 fats, oils and grease-related  
10          sanitary sewer overflows that have the potential to contaminate the nation's water  
11          bodies occur each year. Nationwide, wastewater utilities have been sued for  
12          violations of the Clean Water Act caused by sanitary sewer overflows.
- 13          d. The City's aggressive efforts to control fats, oils and grease will enhance its  
14          compliance with the Clean Water Act, and also reduce the potential for system  
15          back-ups from the combined sewer system.
- 16          e. The primary objective of sections 140 - 140.7 of this Article is to reduce fats, oils  
17          and grease discharges from local food service establishments into the City's  
18          sewerage system. Food service establishments are required by current regulations  
19          to comply with a limit on the amount of total oil and grease they can discharge into  
20          City sewers. This discharge limit has not been completely effective in keeping fats,  
21          oils and grease out of the sewers. Many food service establishments have grease  
22          capturing equipment that is not well maintained or serviced and does little to  
23          remove grease from wastewater discharges. Other food service establishments  
24          have no grease capturing equipment at all.
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1 f. Sections 140 - 140.7 of this Article will:

- 2 1. Provide standards for the types of grease capturing equipment that must be  
3 installed by food service establishments;
- 4 2. Provide for the effective long-term use of grease capturing equipment through  
5 related operational requirements and prohibitions, and periodic inspections;
- 6 3. Increase opportunities for recovering from wastewater discharge lines both food  
7 solids (which can be composted) and waste grease (which can be recycled, and  
8 may also be able to be converted to biofuel);
- 9 4. Aid in preventing sanitary sewer blockages and obstructions from contributions  
10 and accumulation of fats, oils and grease in the sanitary sewerage system;
- 11 5. Prevent the uncontrolled introduction of fats, oils and grease into the sewage  
12 system that will interfere with its operation; and
- 13 6. Facilitate City compliance with applicable federal and state laws regarding  
14 sewerage system operations.

15 **Section 140.1 Applicability.**

16 The provisions of sections 118 – 139 of this Article apply to the discharge of fats, oils  
17 and grease to the City's sewerage system, except to the extent different requirements or  
18 procedures are provided in sections 140.1 – 140.7 of this Article. Sections 140.1 – 140.7 of  
19 this Article are intended to complement, rather than supersede, the provisions of City building  
20 codes and regulations applicable to the installation and operation of grease capturing  
21 equipment. Sections 140 – 140.7 shall be effective on and after April 1, 2011.

22 **Section 140.2 Definitions.**

23 In addition to the definitions provided in section 119 of this Article, the following  
24 definitions are applicable to the discharge and control of fats, oils and grease:  
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- 1 a. Best Management Practices (BMPs). Operational activities, prohibitions, maintenance  
2 procedures, and other management activities that implement the requirements of this  
3 Article, state and federal law, and Department rules, regulations, permits or  
4 authorizations.
- 5 b. Fats, Oils and Grease (FOG). Organic polar compounds derived from vegetable/plant  
6 or animal sources composed of long-chain triglycerides that are used in, or are  
7 byproducts of, the cooking or food preparation process. A wide range of food  
8 preparation activities, including but not limited to the following, can generate fats, oils  
9 or grease: cooking by frying, baking, grilling, sautéing, rotisserie cooking, broiling,  
10 boiling, blanching, roasting, toasting, poaching, infrared heating, searing, barbequing,  
11 or any other food preparation activity that produces a hot food product in or on a  
12 receptacle that requires washing.
- 13 c. First Certificate of Occupancy. A temporary certificate of occupancy or a Certificate of  
14 Final Completion and Occupancy, as defined in San Francisco Building Code Section  
15 109A, whichever is issued first.
- 16 d. Food Service Establishment (FSE). A non-residential wastewater discharger that  
17 engages in activities of preparing, serving, or otherwise making available food for  
18 consumption by the public or on the premises, including restaurants, commercial  
19 kitchens, caterers, hotels and motels, schools, hospitals, prisons, correctional facilities,  
20 nursing homes, care institutions, and any other facility preparing and serving food for  
21 public consumption. Food Service Establishments consist of the following four  
22 categories of FOG dischargers:

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- 1           i. Category 4 FOG Discharger: A FSE that engages only in reheating, hot holding,  
2           or assembly of ready to eat food products. Category 4 FOG Dischargers are also  
3           referred to as Limited Food Preparation Establishments.
- 4           ii. Category 3 FOG Discharger: A FSE that, in the process of preparing and making  
5           food available to the public or on the premises, generates FOG that is discharged  
6           into the City's sewerage system, and has been determined by the General  
7           Manager to pose a less-significant risk of discharging FOG to the sewerage  
8           system. Category 3 FOG Dischargers are also referred to as Less-Significant  
9           Grease Dischargers.
- 10          iii. Category 2 FOG Discharger: A FSE that, in the process of preparing and making  
11          food available to the public or on the premises, generates FOG that is discharged  
12          into the City's sewerage system, and, prior to April 1, 2011, had installed grease  
13          capturing equipment that was properly sized and installed, and remains fully  
14          operational and properly maintained and serviced, as determined by the General  
15          Manager.
- 16          iv. Category 1 FOG Discharger: A FSE that, in the process of preparing and making  
17          food available to the public or on the premises, generates FOG that is discharged  
18          into the City's sewerage system, and does not meet the criteria for Category 2,  
19          Category 3 or Category 4 FOG Dischargers.
- 20          e. Gravity Grease Interceptor (GGI). A plumbing appurtenance or appliance that is  
21          installed in a sanitary drainage system to intercept non-petroleum fats, oils and grease  
22          from a wastewater discharge and is identified primarily by gravity separation and a  
23          minimum total volume of 300 gallons.

- 1 f. Grease Capturing Equipment. A plumbing appurtenance or appliance that is installed  
2 in a sanitary drainage system to separate fats, oils and grease from a wastewater  
3 discharge. Grease capturing equipment include gravity grease interceptors,  
4 hydromechanical grease interceptors, grease removal devices and any other grease  
5 capturing equipment authorized by the General Manager or the Department.
- 6 g. Grease Capturing Equipment Waste. Material collected in and from grease capturing  
7 equipment, including any solids resulting from dewatering processes.
- 8 h. Grease Removal Device (GRD). Any hydromechanical grease interceptor that  
9 automatically, mechanically removes non-petroleum fats, oils and grease from the  
10 interceptor, the control of which are either automatic or manually initiated.
- 11 i. Hydromechanical Grease Interceptor (HGI). A plumbing appurtenance or appliance  
12 that is installed in a sanitary drainage system to intercept non-petroleum fats, oils and  
13 grease from a wastewater discharge and is identified primarily by a design that  
14 incorporates hydromechanical separation.
- 15 j. Less-Significant Grease Discharger. A FSE Category 3 FOG Discharger.
- 16 k. Limited Food Preparation Establishment. A FSE Category 4 FOG Discharger.

17 **Section 140.3 Prohibitions and Limitations.**

- 18 a. Disposal of Fats, Oils and Grease or any food waste containing Fats, Oils and Grease  
19 directly into drains leading to the sewer system is prohibited, except in accordance with  
20 this Article, the Department's rules and regulations, and applicable building codes and  
21 regulations.
- 22 b. Notwithstanding section 123(e)(3) of this Article, installation of garbage grinders in new  
23 Food Service Establishments is prohibited. Garbage grinders in existing Food Service  
24 Establishments shall be removed or rendered permanently inoperative by May 1, 2011.

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- 1 c. Discharge of wastewater with temperature higher than 140°F to or through grease  
2 capturing equipment is prohibited.
- 3 d. Discharge of wastewater from dishwashers to or through grease capturing equipment  
4 is prohibited.
- 5 e. Discharge of water closets, urinals, and other plumbing fixtures conveying human  
6 waste to or through any type of grease capturing equipment is prohibited.
- 7 f. The concentration of Fats, Oils and Grease discharged from Food Service  
8 Establishments into the City's sewerage system shall not exceed the discharge limit for  
9 total recoverable oil and grease established pursuant to Article 4.1 of the San  
10 Francisco Public Works Code, as amended from time to time.
- 11 g. The discharge of solvents or additives that emulsify grease into drainage pipes leading  
12 to grease capturing equipment is prohibited.
- 13 h. The use of biological additives, including, but not limited to enzymes, into drainage  
14 pipes leading to grease capturing equipment is prohibited.

15 **Section 140.4 General Requirements.**

- 16 a. All Food Service Establishments, with the exception of Limited Food Preparation  
17 Establishments, shall install, operate, maintain and service Grease Capturing  
18 Equipment and implement specified Best Management Practices, in accordance with  
19 this Article, any permits, authorizations, rules and regulations issued by the General  
20 Manager and Department, and applicable City building codes and regulations.
- 21 b. All Food Service Establishments shall properly store and recycle or dispose of Fats,  
22 Oils and Grease diverted from their liquid wastestreams in accordance with all laws  
23 and regulations applicable to such storage, recycling and disposal.
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- 1 c. All Food Service Establishment kitchen fixtures connected to drainage pipes that lead  
2 to grease capturing equipment or sewer laterals shall have small-mesh food strainers  
3 that are intact and functional.
- 4 d. All Food Service Establishment wastewater dischargers must at all times comply with  
5 the provisions of this Article, all other applicable local, state and federal laws, including  
6 but not limited to applicable provisions of the San Francisco Health Code and San  
7 Francisco Building and Plumbing Codes, and applicable rules, regulations, permits and  
8 authorizations issued by the General Manager and the Department.
- 9 e. All Food Service Establishments shall ensure that all pots, pans, dishware and work  
10 areas are wiped prior to washing of such utensils, equipment or areas; and shall  
11 implement any other Best Management Practices deemed appropriate by the General  
12 Manager or the Department.
- 13 f. All Food Service Establishments shall apply for a wastewater discharge permit or other  
14 authorization if required by the General Manager.

15 **Section 140.5 Grease Capturing Equipment Requirements.**

- 16 a. All grease capturing equipment shall be installed in accordance with this Article, any  
17 permits, authorizations, rules and regulations issued by the General Manager and the  
18 Department, and applicable City building codes and regulations.
- 19 b. Any Grease Removal Devices installed by a Food Service Establishment in  
20 accordance with the requirements of this Article shall conform to standards or  
21 guidelines deemed applicable by the General Manager or the Department.
- 22 c. Category 1 FOG Dischargers shall install a Grease Removal Device (or a Gravity  
23 Grease Interceptor) in accordance with the provisions of this Article within 60 days of  
24 notification by the General Manager, but in any event no later than July 1, 2013.
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- 1 d. Category 2 FOG Dischargers shall install a Grease Removal Device (or a Gravity  
2 Grease Interceptor) in accordance with the provisions of this Article and within a time  
3 period specified by the Department when notification is given to the FSE , if one or  
4 more of the following conditions applies, as determined by the General Manager:
- 5 i. The pre-existing grease capturing equipment is not properly sized, properly  
6 installed, fully operational or properly maintained and serviced.
  - 7 ii. The wastewater discharge from the FSE does not comply with the City's  
8 wastewater discharge limit for total recoverable oil and grease.
  - 9 iii. The FSE is causing or contributing to grease accumulation problems in sewer  
10 laterals or sewer mains.
  - 11 iv. Some or all of the fats, oils and grease waste containing discharge lines are not  
12 connected to pre-existing grease capturing equipment, and connecting these to  
13 pre-existing grease capturing equipment is not appropriate.
- 14 e. Category 3 or Category 4 FOG Dischargers that change operations to the extent that  
15 the FSE no longer meets the definition of a Category 3 or Category 4 FOG  
16 discharger, shall comply with the grease capturing equipment requirements of  
17 Category 1 or Category 2 FOG Dischargers, whichever is applicable, as determined  
18 by the General Manager.
- 19 f. Category 3 or Category 4 FOG Dischargers causing or contributing to grease  
20 accumulation problems in sewer laterals or sewer mains, as determined by the  
21 General Manager, shall comply with the grease capturing equipment requirements of  
22 Category 1 or Category 2 FOG Dischargers, whichever is applicable, as determined  
23 by the General Manager.
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1 g. A Food Service Establishment may file a request to the General Manager for a  
2 variance from the Grease Removal Device installation requirements of this Article if  
3 the FSE can demonstrate that it is not feasible for a Grease Removal Device to be  
4 installed due to lack of physical space. The Food Service Establishment requesting  
5 such a variance shall bear the burden of demonstrating that the installation of a  
6 Grease Removal Device is not feasible. The determination as to whether a FSE  
7 qualifies for a variance for the reasons detailed in this subsection shall be at the sole  
8 discretion of the General Manager.

9 **Section 140.6 New Construction, Changes in Ownership, and Remodeling**

10 a. The following requirements shall apply when ownership of an existing Food Service  
11 Establishment changes:

12 1. Within 30 days of the official transfer of ownership, the new owner shall apply for a  
13 Food Service Establishment Wastewater Discharge Permit, or other authorization,  
14 as required by the Department rules and regulations. The application shall describe  
15 any changes in food preparation and/or kitchen fixtures that could affect the FOG  
16 Discharger category that was assigned to the establishment under its previous  
17 ownership.

18 b. The following requirements shall apply to newly constructed Food Service  
19 Establishments:

20 1. Category 3 FOG Dischargers, also referred to as Less-Significant Grease  
21 Dischargers, shall install Grease Capturing Equipment and the equipment shall be  
22 operational prior to commencing the discharge of wastewater from food processing  
23 and/or kitchen areas into the City's sewerage system.

1           2. Category 1 FOG Dischargers shall install a Grease Removal Device or a Gravity  
2           Grease Interceptor and the equipment shall be installed and operational prior to  
3           commencing the discharge of wastewater from food processing and/or kitchen  
4           areas into the City's sewerage system.

5           3. No City department shall issue a First Certificate of Occupancy to a new Food  
6           Service Establishment until it has complied with this section.

7           c. Any existing non-Food Service Establishment business that expands or renovates its  
8           operations to include a Food Service Establishment, with the exception of a Limited  
9           Food Preparation Establishment, shall comply with the requirements of section  
10          140.6(b)(1) or 140.6(b)(2), whichever is applicable.

11          d. Existing Food Service Establishments proposing remodeling or renovations that require  
12          a plumbing permit for work in food processing and/or kitchen areas and meet the  
13          criteria below shall be required to install, as part of their project, a Grease Removal  
14          Device or Gravity Grease Interceptor that complies with this Article and applicable City  
15          building codes:

- 16           1. Modifications are proposed to under-slab plumbing in the food processing or  
17           kitchen areas; and/or
- 18           2. An increase in the size of the kitchen area is proposed; and/or
- 19           3. Changes to the size and/or type of food preparation equipment are proposed  
20           which will increase the amount of fats, oils and grease discharged into the  
21           sewerage system.

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23          **Section 140.7 Maintenance and Operations.**  
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- 1 a. Grease capturing equipment must be operated and maintained effectively and properly  
2 at all times, and in accordance with any rules and regulations issued by the General  
3 Manager and the Department. Food Service Establishments shall be required to keep  
4 and/or provide equipment maintenance and service logs or receipts, and to retain such  
5 logs on-site.
- 6 b. Grease capturing equipment shall be maintained at a frequency such that the  
7 combined fats, oil and grease and solids accumulation does not exceed 25% of the  
8 total hydraulic depth of the equipment.
- 9 c. Food Service Establishments shall comply with any Department directive to increase  
10 the frequency of Grease Capturing Equipment servicing, if the frequency of servicing is  
11 not adequate to ensure that the combined fats, oil and grease and solids accumulation  
12 does not exceed 25% of the total hydraulic depth of the equipment.
- 13 d. In addition to the specific grease capturing equipment operation and maintenance  
14 requirements in this Article, Food Service Establishments must follow the  
15 manufacturers' recommendations and guidelines for appropriate operation and  
16 maintenance of the grease capturing equipment. Information on the manufacturer-  
17 recommended operations and maintenance of the grease capturing equipment shall be  
18 retained on-site by the Food Service Establishment.
- 19 e. Gravity Grease Interceptors shall be serviced and emptied of accumulated waste  
20 content as required to maintain efficient operations and shall be pumped out and  
21 cleaned only by a waste hauler certified by the California Department of Food and  
22 Agriculture.
- 23 f. Grease Capturing Equipment Waste that is removed by any means other than self-  
24 cleaning must be removed by a grease hauler certified by the California Department of  
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- 1 Food and Agriculture. The maintenance records signed by the certified grease hauler  
2 shall be retained on-site by the Food Service Establishment for three years.
- 3 g. Materials removed from grease capturing equipment shall not be reinserted into the  
4 interceptor or allowed to pass into the sewerage system.
- 5 h. Best Management Practices regarding maintenance and operations of grease  
6 capturing equipment, specified by the Department, shall be implemented by all Food  
7 Service Establishments.

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9 APPROVED AS TO FORM:  
10 DENNIS J. HERRERA, City Attorney

11 By: \_\_\_\_\_  
12 JOHN RODDY  
13 Deputy City Attorney

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