

Appendix C

FOG Control Program





City of Huntington Beach

Fats, Oils, and Grease Control Program

Prepared by:

City of Huntington Beach
Public Works Department
2000 Main Street
Huntington Beach, CA 92648

December 2004

As Required by:

RWQCB, SANTA ANA REGION
ORDER NO. R8-2002-0014
GENERAL WASTE DISCHARGE REQUIREMENTS (WDR)

CONTENTS

1. PURPOSE	1
2. FOG CONTROL PROGRAM	1
2.1. Inventory	1
2.2. Education	2
2.3. Regulation	2
2.3.1. Requirements for Installation of a Grease Interceptor	2
2.3.2. Requirements for Grease Interceptor Maintenance	3
2.3.3. Prohibitions	4
2.3.4. Requirements for Implementing BMPs	4
2.3.5. Requirements for Record-keeping	6
3. APPENDIX	
3.1.1.1.1. FOG Ordinance	
3.1.1.1.2. FOG Fee Resolution	

1. PURPOSE

The 2000-01 Orange County Grand Jury investigated sewer backups, more commonly known in the industry as sanitary sewer overflows, (SSO) and concluded the primary cause for SSOs was due to sewer pipes clogged with fats, oils and grease (FOG). In 2002, the Regional Water Quality Control Board issued Order No. 2002-0014 which requires sewer agencies to implement programs to reduce SSOs and their potential impacts. Specifically, the Order states the following:

- (viii) *Fats, Oils and Grease Control Program. Prepare and implement a grease, fat, and oil source control program to reduce the amount of these substances discharged to the sewer collection system. This plan shall include the legal authority to prohibit discharges to the system and identify measures to prevent SSOs caused by fats, oils, and grease blockages of sewers. The elements of an effective grease control program may include requirements to install grease removal devices (such as traps, or preferably, interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements. An effective grease control program must also include authority to inspect grease producing facilities, enforcement authorities, and sufficient staff to inspect and enforce a grease ordinance.*
- (A) *The grease control program shall identify sections of the sewer system subject to grease blockages and establish a cleaning maintenance schedule for each section; and*
- (B) *The program shall develop and implement source control measures, for all sources of grease and fats discharged to the sewer system, for each section identified in (A) above.*

As Food Service Establishments (FSEs) have been identified as the major generator of FOG, this FOG Control Program focuses on those facilities. A three-tiered approach of Inventory, Education, and Regulation has been used to develop this program.

2. FOG CONTROL PROGRAM

2.1 Inventory

An inventory of all FSEs within the City of Huntington Beach has been completed to ascertain those establishments, which produce significant amounts of FOG. Each FSE was visited to determine whether it utilized a grease control device such as a grease trap or interceptor. The location of those FSEs were then input into the City's Geographical Information System (GIS) with links to the inventory database. To better understand the issue, known "hot spots", which are locations of the sewer system that require above average cleaning due to FOG were obtained from the City's sewer maintenance staff. These "hot spots" were input into our GIS and color coded to identify the necessary cleaning schedule as low, medium, or high. Also input, were any known past SSOs. As new FSEs obtain a permit and business license, their pertinent information will be added to the inventory database and GIS. City staff will have the ability to monitor this collection of data as a tool to identify local trends and areas of concern as time goes by.

2.2 Education

Educating the public, specifically the owner of the FSE is key to the understanding of the issue. At the onset of the program, or when a new business is opened, City staff will review with the owner/manager, the causes of FOG related SSOs and their implications as well as Kitchen Best Management Practices (BMP) that can be used to limit the amounts of FOG from entering the sewer system. A training video, which describe, these practices will be supplied to the owner in several different languages to share with their employees. In addition, literature and posters will be given out to the establishment to reinforce these BMPs on a daily basis. By City code, the owner/manager is required to review these procedures with all existing and new kitchen staff. As part of the City's inspection program, evidence of this training in the form of the employees signature attesting to the training, will be requested.

2.3 Regulation

The most complex component of this program is the regulations and requirements imposed on FSEs to establish FOG control mechanisms. These regulations have been codified through an ordinance to insure proper legal authority to impose as well as enforce them. A copy of the ordinance and fee resolution to support this program is included in the appendix of this Plan. There are two essential elements for effectively controlling the discharge of FOG:

- Pretreatment through installation, operation, and maintenance of a properly designed and adequately sized grease control device. The use of a properly maintained grease control device has been shown to be the most effective conventional FOG control technology.
- Implementation of kitchen BMPs are practical measures and operations, that when implemented will significantly reduce the quantities of FOG released from FSEs. When practiced consistently, BMPs help reduce FOG loading on the grease control device. As a result, the performance of the grease device is optimized and improved in addition to its maintenance frequency being reduced, as well. BMPs include proper grease disposal and handling and proper kitchen practices for minimizing the discharge of FOG at the source. Examples of these BMPs are given in Section 2.3.4.

2.3.1 Requirements for Installation of Grease Control Devices

A new FSE is required to install a grease control device, since there is a full opportunity to plan for the new installation with the cost component being part of the facility's initial

capital investment. Any FSE conducting a major remodeling may have a similar opportunity and therefore the same requirement would be implemented.

Although it would be ideal to require all FSEs to install an adequate grease control device, considerations should be made for existing FSEs with no such device. These existing FSEs may have not been required to install a grease control device when their facilities were constructed, and therefore, it is anticipated that retrofitting problems may be encountered. Therefore, this program allows existing FSEs with no grease control device be allowed to continue operations using only BMPs to reduce FOG. However, a monthly fee surcharge will be assessed on those FSEs without a grease control device in order to cover the City's costs for an elevated level of inspection and cleaning. Any costs incurred by the City above and beyond for additional inspections, administration and cleaning will be charged directly to the FSE on a time and material basis.

Visual inspection of the FSEs lateral and connecting sewer main is the most accurate indicator of a facility's impact as a result of discharging FOG at significant levels that might cause a sewer blockage. This inspection can also be used to establish action levels that would trigger the requirement for installation of a grease control device on an existing FSE. Visual inspection is accomplished through the use of CCTV technologies. This monitoring method has proven to be useful in controlling FOG discharge. There are occasions, however, when a clean lateral may not necessarily represent the absence of FOG discharge. The use of additives or discharge of solvents that emulsify grease can camouflage a significantly high FOG discharge.

2.3.2 Requirements for Interceptor Maintenance

Interceptor maintenance shall conform to the following requirements as outlined in the City's ordinance:

- (a) Grease Interceptors shall be maintained in efficient operating condition by periodic removal of the full contents of the interceptor, which includes wastewater, accumulated FOG, floating materials, sludge and solids.
- (b) All existing and newly installed grease interceptors shall be maintained in a manner consistent with a maintenance frequency approved by the Director pursuant to this section.
- (c) No FOG that has accumulated in a grease interceptor shall be allowed to pass into any sewer lateral, sewer system, storm drain, or public right of way during maintenance activities.
- (d) All establishments with grease interceptors may be required to submit data and information necessary to establish the maintenance frequency of the grease interceptors and shall be determined in one of the following methods:
 - (1) Grease interceptors shall be fully pumped out and cleaned at a frequency such that the combined FOG and solids accumulation does not exceed 25% of the total liquid depth of the grease interceptor. This is to ensure

that the minimum hydraulic retention time and required available volume is maintained to effectively intercept and retain FOG discharged to the sewer system.

- (2) All establishments with a grease interceptor shall maintain their grease interceptor not less than every 6 months. Grease interceptors shall be fully pumped out and cleaned quarterly when the frequency described in Section 2.3.2.d.1 has not been established. The maintenance frequency shall be adjusted when sufficient data have been obtained to establish an average frequency based on the requirements described in paragraph (1). The City may order a change to the maintenance frequency at any time to reflect changes in actual operating conditions. Based on the actual generation of FOG from an establishment, including food service establishments that generate FOG, the maintenance frequency may increase or decrease.
- (3) If the grease interceptor, at any time, contains FOG and solids accumulation that does not meet the requirements described in Section 2.3.2.d.1, any establishment, including food service establishments generating FOG, shall be required to have the grease interceptor serviced immediately such that all fats, oils, grease, sludge, and other materials are completely removed from the grease interceptor. If deemed necessary, the Director may also increase the maintenance frequency of the grease interceptor from the current frequency.

2.3.3 Prohibitions

The following prohibitions shall apply as they may affect the performance of a grease control device:

- (a) Installation of food grinders in the plumbing system of new construction of any FSE that generate FOG is prohibited. Furthermore, all food grinders must be removed from existing FSEs that generate FOG, as determined by the Director, within 90 days of written notice to remove.
- (b) Introduction of any additives into any establishment's wastewater system for the purpose of emulsifying FOG is prohibited.
- (c) Disposal of waste cooking oil into drainage pipes is prohibited. All waste cooking oils shall be collected and stored properly in receptacles such as barrels or drums for recycling or other acceptable methods of disposal.
- (d) Discharge of wastewater from dishwashers to any grease trap or grease interceptor is prohibited.
- (e) Discharge of wastewater with temperatures in excess of 140°F to any grease control device, including grease traps and grease interceptors, is prohibited.

-
- (f) The use of biological additives for grease remediation or as a supplement to interceptor maintenance is prohibited, unless written approval from the Director is obtained.
 - (g) Discharge of wastes from toilets, urinals, washbasins, and other fixtures containing fecal materials to sewer lines intended for grease interceptor service, or vice versa, is prohibited.
 - (h) Discharge into the sewer system of any waste, which has FOG as well as solid materials removed from the grease control device, is prohibited. Grease removed from grease interceptors shall be waste hauled periodically as part of the operation and maintenance requirements for grease interceptors. Licensed waste haulers or an approved recycling facility must be used to dispose of FOG, including waste cooking oil.

2.3.4 Requirements for Implementation of BMPs

In addition to pretreatment, another basic component of the FOG control program is the application of BMPs to control generation of FOG from the source. At a minimum, **all FSEs** should be required to implement enforceable BMPs. Acceptable BMPs are defined in the City's ordinance as follows:

- (a) All establishments shall implement Best Management Practices in accordance with the requirements and guidelines established by the City in an effort to minimize the discharge of FOG to the sewer system.
- (b) All establishments shall be required, at a minimum, to comply with the following Best Management Practices:
 - (1) Installation of drain screens. Drain screens shall be installed on all drainage pipes in food preparation and kitchen areas.
 - (2) Segregation and collection of waste cooking oil. All employees must comply with all provisions of this Chapter relating to segregation, disposal and recycling of FOG.
 - (3) Disposal of food waste. All food waste shall be disposed of directly into the trash or garbage, and not in sinks or toilets.
 - (4) Employee training. Kitchen staff of the food service establishment shall be trained within 180 days of the effective date of this Chapter, and twice each calendar year thereafter, on the following subjects:
 - (i) How to "dry wipe" pots, pans, dishware and work areas before washing to remove grease.

-
- (ii) How to properly dispose of food waste and solids prior to disposal in trash bins or containers to prevent leaking and odors.
 - (iii) The location and use of absorption products to clean under fryer baskets and other locations where grease may be spilled or dripped.
 - (iv) How to properly dispose of grease or oils from cooking equipment into a grease receptacle such as a barrel or drum without spilling.

Training shall be documented and employee signatures retained indicating each employee's attendance and understanding of the practices reviewed. Training records shall be available for review at any reasonable time by the Director and/or his designee.

- (5) Maintenance of kitchen exhaust filters. Filters shall be cleaned as frequently as necessary to be maintained in good operating condition. The wastewater generated from cleaning the exhaust filter shall be disposed properly.
- (6) Kitchen signage. Best management and waste minimization practices shall be posted conspicuously in the food preparation and dishwashing areas at all times.

2.3.5 Requirements for Record-keeping

FSEs are required to keep all manifests, receipts and invoices of all cleaning, maintenance, grease removal of/from the grease control device, disposal carrier and disposal site location for no less than four years. These records may include:

- (a) A logbook of grease control device cleaning and maintenance practices.
- (b) A record of Best Management Practices being implemented including employee training.
- (c) Copies of records and manifests of waste-hauling interceptor contents and/or waste cooking oil disposal.
- (d) Records of sampling data and sludge height monitoring for FOG and solids accumulation in the grease interceptors.

APPENDIX

