



vii. Fats, Oils, and Grease (FOG) Control Program

FOG Control Program: Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system.

Background

In July 1997, the City launched a study to assess the impacts of excessive Fats, Oils, and Grease (FOG) discharges on its sewer system. The study was intended to identify the sources of and recommend measures to control FOG discharges into the system, thereby minimizing FOG-related sewer blockages and overflows in a cost-effective manner. The study revealed that, at the time, approximately 50% of all sanitary sewer overflows (SSOs) were caused by FOG. Major FOG contributors were Food Service Establishments (FSEs), non-profit organizations involved in food processing or preparation, and residential dwellings.

The study recommended the establishment of a grease control program that included a more aggressive preventive maintenance program, more extensive sewer inspection and cleaning, and the implementation of a source control program that would restrict the amount of grease from all possible sources.

Following an extensive outreach to and in partnership with the over 10,000 FSEs in Los Angeles, the City developed a three-pronged approach to its FOG Control Program, including:

1. Source Control
2. Sewer Cleaning
3. Community Outreach and Education

Recognizing that blockages caused by FOG could result in SSOs and have an adverse impact on public health and the environment, the City Council enacted a FOG Control Ordinance (Number 174,047) effective August 5, 2001. This Ordinance amended the Los Angeles Municipal Code Section 64.30 and the Board of Public Works' (Board) Rules and Regulations Governing Disposal of Industrial Wastewater into Publicly Owned Treatment Works (POTW) of the City of Los Angeles (Rules and Regulations).

Through the implementation of its FOG Control Program, the City achieved an 85% reduction of FOG-related sanitary sewer overflows (SSOs) over the six-year period from the baseline fiscal year 2000/01 through FY 2006/07.

FOG Control Program

The following is a description of the City's FOG Control Program including Sub-parts (a) through (g) as provided in the State's General Waste Discharge Requirements for developing SSMP Part vii, FOG Control Program.

(a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;

Public education outreach and stakeholder involvement is an important part of the City's FOG Control Program and is an ongoing effort. Educational videos, DVDs, and brochures describing the FOG Control program and best management practices (BMPs) are distributed to FSEs identified as doing business in the City in five languages: English, Spanish, Korean and two Chinese dialects, Mandarin and Cantonese. FOG control BMPs pamphlets and door hangers are also distributed to Los Angeles residents. In addition, the City's Bureau of Sanitation maintains an up-to-date website

www.lacity.org/san/wastewater/industrial_waste_management/fog.htm which serves as an additional source of information to the food service industry and the community at large. A FOG Ordinance Summary, BMP Guidebook for FSEs, and general information about eliminating FOG discharges into the sewer system are among the information provided on the website.

The City participates in conferences and expositions, and conducts annual workshops to communicate its FOG Control Program requirements to and obtain feedback from the general public, FSEs, and regulatory agencies.

(b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;

The City does not own or operate any FOG disposal facilities. The FSEs must, at a minimum, collect the waste FOG and prevent the waste FOG discharge into the sewer system by implementing the following BMPs:

- "Dry wipe" pots, pans, dishware and work areas prior to washing. Use rubber scrapers or paper towels to remove FOG from cookware, utensils, and serving ware.
- Collect waste cooking oil and store properly in recycling barrels or drums. Use a licensed hauler or recycling facility to dispose of this waste.
- Use absorbent products to clean under fryer baskets and other locations where FOG may be spilled or dripped.

The City does not allow FOG waste haulers to discharge waste FOG into the sewer system either. However, it provides FSEs with a list of licensed grease haulers and rendering companies.

(c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;

The City's FOG Control Ordinance (Number 174,047) effective August 5, 2001, mentioned in Sub-part vii (a) above, provides the legal authority to prohibit FOG discharges by food FSEs. To mitigate SSOs resulting from blockages caused by FOG accumulation, the City's Bureau of Sanitation implements its Sewer Spill Response Plan (SSRP). The SSRP

provides guidelines for investigating FOG-related SSO's and taking enforcement and corrective actions to prevent future occurrences.

(d) Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;
The Los Angeles Industrial Waste Control Ordinance (Paragraph (l) of Subdivision 1 of Subsection C) states the following:

“FSEs that are required to maintain an Industrial Wastewater Permit are also required to install, operate, and maintain an approved type and adequately sized, remotely located and readily accessible, grease interceptor, unless a conditional waiver is granted by the Director [of the Bureau of Sanitation].”

Major provisions of the FOG Control Ordinance and its Rules and Regulations regarding the requirements for installing and maintaining grease removal devices are summarized below:

- **Grease Interceptor Requirements**

Installation of grease interceptor(s) is required at all FSEs that have the potential to generate waste FOG unless a Conditional Waiver is granted, including: (1) FSEs that are to be newly constructed, (2) any existing non-FSE converting to an FSE, (3) FSEs with remodeling valued at \$100,000 or more, and (4) any FSE deemed by the Director of the Bureau of Sanitation, for example, any FSE that is known to cause FOG-related sewer blockages or overflows or fails to implement BMPs.

A grease interceptor is a plumbing device, with a minimum size of 750 gallons that is installed in an industrial wastewater drainage system to intercept and prohibit FOG from entering the sewer system. If an FSE can demonstrate that installation of a grease interceptor is not feasible due to space constraints or other considerations, the Director may issue a variance from grease interceptor requirements and authorize the installation of alternative grease removal devices.

The design, construction, installation and testing of commercial kitchen grease interceptors or grease traps shall be in accordance with Sections 94.1014.0 through 94.1017.3 of the City of Los Angeles Plumbing Code.

- **Operation and Maintenance of Grease Interceptors**

FSEs are required to comply with the following requirements for operation and maintenance of grease interceptors:

- a) Grease interceptors shall be maintained in efficient operating condition by periodic removal of accumulated grease including floating material, sludge and solids.
- b) Grease interceptors shall be 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.
- c) A logbook of grease interceptor cleaning and maintenance practices shall be maintained.

- d) Copies of records and manifests of hauled waste FOG or hauled interceptor wastewater shall be maintained in FSEs files.

FSEs are also required to comply with the requirements for operation and maintenance of grease traps as follows:

- a) Grease traps shall be cleaned on a daily basis.
- b) A visual inspection of grease traps shall be conducted on a daily basis to check for leaking seams and pipes and ensure effective operation of the baffles and flow regulating device.
- c) Grease traps and baffles shall be maintained free of all caked-on FOG and food waste.
- d) Removable baffles shall be removed and cleaned during the maintenance process.
- e) Grease traps shall be maintained free of all food residues and any FOG waste dislodged during the cleaning and scraping process.
- f) Any waste including FOG and solid material removed from the grease removal device shall not be discharged into the sanitary sewer.

(e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;

The Industrial Waste Control Ordinance was amended in August 2001 by the FOG Control Ordinance (No. 174,047), contained in Section 64.30 of the Los Angeles Municipal Code (LAMC), in order to control waste FOG discharges from food service establishments. A major stipulation under this amendment requires those FSEs that generate waste FOG during food preparation processes to obtain an Industrial Wastewater Permit.

The FOG Control Ordinance provides the Bureau of Sanitation with the legal authority to visit and inspect FSEs and monitor the implementation of Best Management Practices. As part of routine inspection activities, inspectors from the Bureau's Industrial Waste Management Division (IWMD) determine permit requirements and verify compliance with the FOG Ordinance provisions. Additionally, information and training materials such as multi-language DVDs, BMP posters, a summary of the FOG Control Ordinance, and lists of licensed grease waste haulers and pretreatment equipment manufacturers are provided to help businesses comply with the Rules and Regulations.

Major provisions of the FOG Control Ordinance and its Rules and Regulations are summarized below:

- **Industrial Wastewater Permit**

Unless exempt, FSEs are required to obtain a Permit, pay a Permit application fee of \$356, and an annual Inspection and Control fee of \$244. An FSE is exempted from obtaining an Industrial Wastewater permit if it does not potentially generate waste FOG during food preparation processes, and does not significantly affect the publicly owned treatment works (POTW), provided that the FSE has implemented and demonstrates compliance with BMPs as specified in the Rules and Regulations. Determination of permit exemption shall be based upon cooking equipment on site at the FSE. Exempted establishments shall not be engaged in preparation of foods that are prepared using grills, fryers, stir-fry type (woks) ranges, barbecues, or similar devices where grease can be introduced in the wastewater.

- **Best Management Practices (BMPs)**

FSEs are subject to BMP requirements as specified in Section 64.30, Subsection C.1.(c) and (k) of the code. All FSEs shall be required, at a minimum, to comply with the following BMPs, when applicable. Acceptable fulfillment of all requirements is subject to approval by the Director. The BMPs that FSEs are required to implement include collecting waste cooking oil and storing in drums or barrels for recycling, disposing food waste directly into the trash/garbage can and not into the sink, dry-wiping pots, pans, dishware prior to washing, using absorbent pads or other materials to clean up spills before mopping the floor, and removing garbage grinders which force food containing FOG into the sewer.

- **Revocation of Conditional Waivers**

The Director's determination to revoke an FSE's Conditional Waiver from Grease Interceptor Installation Requirements is based on the FSE's non-compliance with any of the terms and conditions of the Conditional Waiver. Specific violations that result in revocation of the FSE's Conditional Waiver are as follows:

- a) The FSE disposes of food waste into sinks or equivalent, rather than directly into the trash or garbage receptacles;
- b) The FSE fails to "Dry Wipe" all pots, pans, dishware and work areas prior to washing of such utensils, equipment or areas;
- c) The FSE fails to collect waste cooking oil and store it properly in recycling barrels or drums;
- d) The FSE is confirmed to have contributed to FOG accumulation within the sewer collection system that resulted in, or threatens to result in, an Sanitary Sewer Overflow (SSO); or
- e) The FSE fails to comply with any other condition deemed appropriate by the Director.

- **Variance to allow Alternative Grease Removal Devices**

LAMC Section 64.30 (C)(1) states: “If an FSE can demonstrate that installation of a grease interceptor is not feasible due to space constraints or other considerations, the Director may issue a variance from grease interceptor requirements and authorize the installation of alternative grease removal devices. Alternative grease removal devices include, but not limited to, devices that are used to trap, separate and hold grease from wastewater and prevent it from being discharged into the POTW. All alternative grease removal devices must be approved, by the Director, on a case-by-case basis. The FSE must also demonstrate that BMPs have been implemented.

An FSE that is designated as a “Minimal FOG Generator” shall qualify for a revocable variance from the LAMC Section 64.30 grease interceptor installation requirement, and shall be authorized to install an alternative grease removal device. A “Minimal FOG Generator” shall mean an FSE using cooking equipment limited to oven(s), such as bakery oven(s), toaster oven(s), and pizza oven(s). Any use of cooking equipment such a deep fryer, grill, range top, stir-fry wok, barbecue, or similar device will exclude an FSE from designation as a minimal FOG Generator.

(f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and

SSOs caused by blockages from FOG are monitored for location and required cleaning frequency. All blockages are plotted on a GIS overlay map. Locations with a high number of FOG blockages are given special investigation and cleaning status. Sewers prone to FOG accumulation or blockages are given high priority and cleaned more frequently in an effort to prevent FOG-related overflows. All reaches, including “non-problem” sewers, are included in a routine preventive maintenance cleaning schedule.

Scheduled and completed tasks are catalogued and tracked by work orders in a maintenance management system called Enterprise Maintenance Planning and Control (EMPAC). The maintenance program includes preventive, proactive, predictive, and corrective maintenance; maintenance engineering; and quality control.

EMPAC is an asset management and maintenance system the Wastewater Collection Systems Division utilizes to manage work, track warehouse parts, and streamline maintenance related purchases. The Division also uses the Field Automation Sanitation Trucks (FAST) which is a field data access component to EMPAC. FAST greatly reduces the amount of paperwork in collecting closure data for work orders. Work orders are closed in the field, thus reducing the need for data entry by clerks and supervisors. Geographic Information System (GIS) integration ties EMPAC assets to actual field locations, searchable by street address or intersection. Real-time access to data in the field enables crews to work more efficiently.

(g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.

The Industrial Waste Management Division (IWMD) investigates potential source(s) of FOG waste to verify compliance with applicable sections of LAMC 64.30. The City has developed an Enforcement Response Plan. FSEs are required to have an industrial wastewater permit, comply with source control measures for all sources of grease as specified in LAMC 64.30, implement BMPs, install grease interceptors as applicable, and are subject to annual inspections to verify continuous compliance.

The FOG Control Ordinance provides the Bureau of Sanitation with the legal authority to visit and inspect FSEs and monitor the implementation of Best Management Practices. As part of routine inspection activities, inspectors from the Industrial Waste Management Division (IWMD) determine permit requirements and verify observance of FOG Ordinance provisions. Additionally, information and training materials such as multi-language DVDs, BMP posters, an ordinance summary, lists of licensed grease waste haulers, and pretreatment equipment manufacturers are provided to help businesses comply with the Rules and Regulations.

Installation of grease interceptor is required at all FSEs that have the potential to generate waste FOG unless a Conditional Waiver is granted, including: (1) FSEs that are to be newly constructed, (2) any existing non-FSE converting to an FSE, (3) those FSEs with remodeling valued at \$100,000 or more, (4) any FSE is deemed by the Director of the Bureau of Sanitation. For example, any FSE that is known to cause FOG-related sewage overflows or fails to implement BMPs will be required to install a grease interceptor.

In the event an industrial discharger fails to comply with the requirements of the FOG Control Ordinance, the IWMD takes immediate enforcement action by applying one or more appropriate enforcement action(s). The Enforcement actions available to the City of Los Angeles are outlined in the Enforcement Response Plan that includes the following:

- Notice of Violation (NOV) – A notice by certified mail or personal service which identifies the permit condition(s) violated, the circumstances surrounding the violation(s), and provides the FSE with an opportunity to correct the noncompliance on its own initiative.

Within 10 days of the NOV, the FSE is required to conduct an investigation and submit a written response describing the cause of the violation, the actions taken to correct the violation or prevent future violations and the date those corrective actions will be completed.

- Telephone Assistance – A telephone call or verbal notification to an FSE official used to address violations, usually of a minor nature. All phone or verbal notifications are documented in the FSEs' file.
- Conditional Waiver Revocation – IWMD personnel revoke the FSEs Conditional Waiver for cause and require an installation of a grease interceptor.
- Administrative Enforcement Order – An order that requires the FSE to cease a specific activity and implement corrective actions to permanently achieve and maintain compliance. An Order may be issued when an FSE fails to achieve compliance after a NOV is issued or when a pattern of noncompliance is observed.
- The City may pursue civil and criminal penalties, as well as injunctive relief.

Reference

LAMC Section 64.30 and Board of Public Work Rules and Regulations Governing the Disposal of Industrial Wastewater into the Publicly Owned Treatment Works of the City of Los Angeles

City of Los Angeles, Department of Public Works, Bureau of sanitation, Industrial waste Management Division's Referral and Enforcement Response Procedures for fats, Oils, and Grease Discharges Resulting in a Sanitary Sewer Overflow