



City of Lancaster, Department of Public Works
Wastewater Treatment Plant FOG Control Program
Habtamu Kenea



CITY OF
LANCASTER

1220 New Danville Pike, Lancaster, PA 17603
Office (717) 293-5548 | Mobile (717) 824-7041
Fax (717) 293-5545
HKENEA@CITYOFLANCASTERPA.GOV

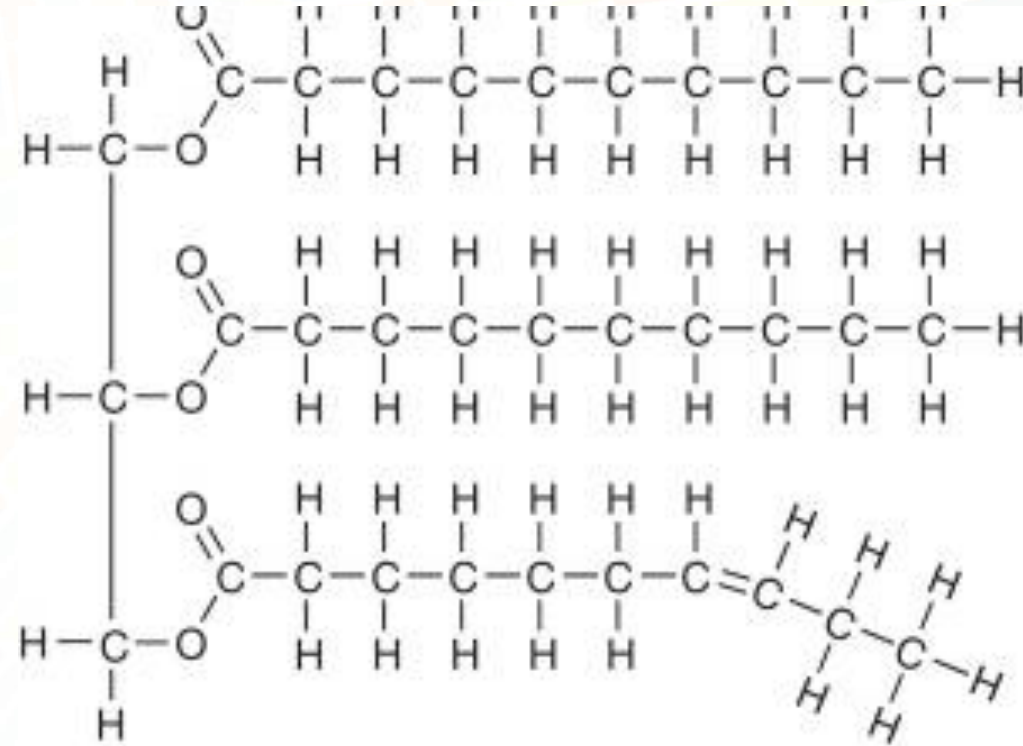
City of Lancaster FOG Control Program Mission

- To protect public health & safety
- To protect property (City sanitary sewer system and wastewater treatment plant)
- To protect the quality of the river (Conestoga River)
- To protect the environment



What is FOG?

- Fats, oils and grease (FOG) are substances used to aid in the preparation of food (deep fryer fat) or that are produced during the preparation of food (bacon grease).
- Organic nonpolar compounds derived from vegetable/plant or animal sources that are composed of long chain triglycerides



Why is FOG a Problem?

- Causes blockages, backups, burst pipes, and sanitary sewer overflows (SSOs)
- Increases sewer cleaning and maintenance costs
- Reduces sewer pipe life
- Reduces pipe capacity
- Serves as food for certain filaments in the wastewater treatment process



Why is FOG a Problem?....

- The FOG problem is so serious it has made the front page of the Wall Street Journal
- Local governments already spend \$25 billion a year to keep the sewers running," in an article published in June 2001.
- The Water Infrastructure Network (WIN) warns that it will cost an additional \$20 billion dollars a year for the next 20 years to keep sewers from falling apart.



Why is FOG a Problem?.....

- The Environmental Protection Agency (EPA) released a report to Congress in 2004 stating that 47% of all reported sewer blockages were a result of FOG.
- In 2007, the EPA launched a FOG Control Program for Food Service Establishments as part of the National Pretreatment Program.
- EPA's Pretreatment Program regulations at 40 CFR 403.5(b)(3) prohibit "solid or viscous pollutants in amounts which will cause obstruction" in the public owned treatment works (municipal sewer) and its collection system.

Why is FOG Control Program Needed?

A Wall Street Journal Report states:

“75% of all the sewers in America operate at 50% of their capacity due to FOG buildup in them.”

Because of these and other related issues, the City of Lancaster instituted FOG Control Program back in 2020 to lessen the impact of fats, oils, and grease on the public property (City sewer system, wastewater treatment plant), quality of the river, public health and safety, and environment.



Why is FOG Control Program Needed?.....

The City of Lancaster implements a fats, oils, and grease management program as part of our CSO Nine Minimum Controls Program, at the direction of EPA. Designed to regulate all food service establishments and petroleum oil establishments

What is the FOG Control Program Doing?

- Provides simple and clear FOG Regulations and inspections lists for Food Service Establishment (FSEs) and Petroleum Oil Establishment (POEs) connected to a City sewer system.
- Provides kitchen BMP guidelines for FSEs & POEs connected to the City sewer system.
- Coordinates FOG-related assistance among the City and Townships various permitting/inspection departments and hauler companies.
- Provides educational outreach & information for all FSEs, POEs, and the public at Water Week, Mayor's Neighborhood Week, and other outreach activities

FOG Control Program Elements

- Once a year inspections of FSEs & POEs to determine compliance with the City of Lancaster Sewer Ordinance. Follow up inspections as needed.
- Records of routine maintenance of grease traps/interceptors and exhaust systems.
- Tests FOG levels in grease interceptors
- Best Management Practices Training and Grease Control Device Maintenance for Food Service Establishment Employees.
- FSE Employee training
 - Implementing kitchen BMPs to control FOG discharge.
 - Proper grease trap maintenance, and proper disposal.
 - Connect excessive FOG to sewer blockages and Sanitary Sewer Overflows.

FOG Enforcement, Education, Source Control, and Disposal



FATS, OILS & GREASE (FOG) REGISTRATION FORM

SECTION A. GENERAL INFORMATION

- Company Name: _____
Company Mailing Address:
Street: _____ City/Township: _____
Zip Code: _____ Telephone: _____
- Company Premise Address:
Street: _____ City/Township: _____
Zip Code: _____ Telephone: _____
- Authorized Representative of Company:
Name: _____ Telephone: _____
Title: _____ Email Address: _____
- Contact Person for of Company:
Name: _____ Telephone: _____
Title: _____ Email Address: _____

This registration form is to be signed by an authorized representative of the company after adequate completion of this form and review of the information by the signing official.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name

Title



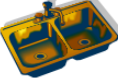



Signature

Date

CITY OF LANCASTER

Kitchen Best Management Practices (BMPs) for Fats, Oils & Grease (FOG)

The best way to stop FOG from building up in sewer lines is to prevent it from entering your drains, by using 'Kitchen Best Management Practices'. The most common Kitchen BMPs are shown below.

Kitchen BMP	Reason For	Benefits to Food Service Establishment
Train employees in the proper use of kitchen BMPs, including the proper methods of FOG disposal. Provide frequent refresher training as well.	 Employees are more willing to support an effort if they understand the importance of implementing BMPs to prevent sewer spills.	Subsequent benefits of BMPs will have a better chance of being implemented.
Display the appropriate "No Grease" signs or posters prominently in the workplace.	 Signs serve as a constant reminder for employees working in kitchens.	These reminders will help minimize grease discharge to the interceptors and reduce the cost of cleaning and disposal.
Install screens on all kitchen drains. Consider openings that are not more than 3/16 inch. Screens should be removable for frequent cleaning.	 Drain screens prevent food particles containing FOG from entering the sewer system and causing blockages.	Drain screens will reduce the amount of material going to grease interceptors. As a result, grease interceptors will require less frequent cleaning, thus reducing maintenance costs.
Hot water over 140°F from cooking or cleaning operations should not be put down a drain that is connected to a grease interceptor.	 Temperatures in excess of 140°F will dissolve grease, which may re-congeal or solidify in the sewer collection system as the water cools down in temperature.	Using water less than 140°F where applicable will reduce gas or electric energy costs for heating the water. It also helps prevent FOG pass through in grease interceptors.
When transporting used FOG, do not overfill containers and cover containers with lids.	 If containers are too full or lack covers, the FOG may spill over.	Adequately sized and covered grease receptacles will prevent FOG drips and spills.
Pour all cooking grease (yellow grease) and liquid oil from pots, pans and fryers into a covered grease container for recycling. Use a permitted waste collection company or authorized rendering/recycling facility and maintain a log of all offsite disposal of FOG.	 Recycling reduces the amount of FOG discharged to the sewer system.	The Food Service Establishment may be paid for the waste material as opposed to having to pay for the waste to be disposed of, therefore, reducing the amount of offsite waste disposal costs.

FOG Education, Source Control, Enforcement, & Disposal....



GREASE INTERCEPTOR / OIL/WATER SEPARATOR MAINTENANCE LOG

Facility Name:			Facility Location:		
Date	Time	Method of Cleaning (Self or Waste Hauler)	Quantity Removed	Person Cleaning Initials	Comments

Data Management: Key to an organized program

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FOG BMP™
Save. Comply. Sustain.

Hello, Habtamu Kenea! Go to FOG BMP Dashboard Log out

City of Lancaster Department of Public Works - FOG BMP Dashboard

Minimize Analytics

Store List

User List

Reports

Approved Pumping Company List

Disposal Facilities List

FSE Training Videos

Municipality Profile

Notifications

Inspections

Mass Email

Sewer Overflow Log

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- Track inspections and tests
- Generate reports
- Store pictures for reference

FOG BMP Software

- Provides a shared database of FOG cleaning records and manifests available to the City, waste haulers, and FOG generating facilities (FSE's and POE's).
- Enables us to see exactly what facilities were serviced, how much FOG waste was removed, and view the required sign off from the disposal facility where the waste was taken.

Program Compliance: Permits and Enforcement

- Facilities inside the City have a license as part of the health inspection program. Facilities outside the City have a permit
- Inspections
- Notice of Violations
- Fines for repeated violations

What are the Challenges of FOG Program?



- New Program – why am I being regulated?
- Effective communication with all the key stakeholders
- Educational materials - fact sheets, posters, flyers, and brochures
- Development of educational methods - public service announcements, advertising, and different public events to educate the public and distribution of FOG information materials with water or sewer bills.
- Need for training at the food establishments

Solutions to the Challenges

1. Providing FOG educational materials to the public and educating FSE's
2. Increasing awareness about FOG, promoting better management practices in the kitchen
3. Identifying ways that everyone can participate/take ownership in controlling FOG at the source
4. Working closely with different departments and bureaus within the City including Building/Zoning Bureau and Health Bureau.
5. Reviewing all new construction plans for FSEs to ensure that the FOG system is properly sized and meets all federal, state, and local regulation requirements
6. Inspecting the FOG system during construction to ensure that it was installed properly.



Solutions to the Challenges....

1. Conducting routine inspections on all FOG system in existing and new FSEs & POEs to ensure compliance with the City of Lancaster FOG control manual and City sewer ordinance.
2. Continuing to grow and strengthen our lines of communications regarding FOG with FSEs and POEs, the public, and most importantly within City different departments.
3. Always looking for new developments/technologies in FOG control and management to make the City of Lancaster one of the leaders in FOG control programs.

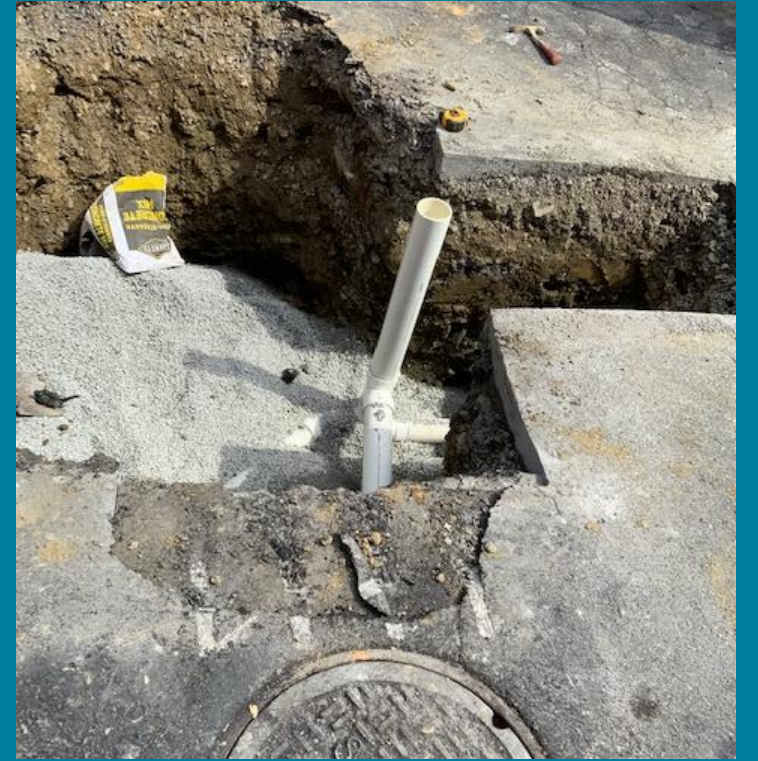




FOG Control Program Challenges!



FOG Control Program Challenges....



FOG Control Program Success



FOG Control Program Success....



FOG Control Program Success....



Questions?

THANK YOU!



**CITY OF
LANCASTER**

Habtamu Kenea

**City of Lancaster, Dept. of Public Works
Wastewater Treatment Plant FOG Control
Program Presentation**

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