Mitigating FOG/POG

*A proven program to reduce Fats, Oils, and Grease (FOG) and Petroleum, Oil, and Grease (POG) in your sanitary sewer*

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Kennedy/Jenks Consultants
INTRODUCTION

• Purpose and Definitions
• Categories and Criteria
• Program
  • In House
  • Field
• Experience to date
• Questions
PURPOSE

• Prevent FOG/POG from entering the sanitary sewer system and Wastewater Treatment Plant (WWTP)
**PURPOSE**

*Sanitary Sewer System And WWTP*

- **FOG/POG Facility**
- **Sanitary Sewer Gravity Flow Pipe**
- **Manholes**
- **Lift Station**
- **Primary Treatment**
  - Screens – sand and grit
  - Solids/Sludge Digester
- **Secondary Treatment**

*Kennedy/Jenks Consultants*
DEFINITIONS - FOG

Fats, Oils, Grease from food generating facilities, such as restaurant, deli, grocery, coffee shop, cafeteria (school, assisted living, campus), church, or bar.
DEFINITIONS - POG

Petroleum, Oil, Grease from gas stations, commercial garages, car washes
DEFINITIONS

Grease Interceptor
DEFINITIONS

Exterior Interceptors
DEFINITIONS

Exterior Interceptors
DEFINITIONS

Interior Traps
## CATEGORIES – Varies by Entity

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FOG Exterior Grease Interceptor Exists</td>
</tr>
<tr>
<td>2</td>
<td>FOG Interior Grease Trap Exists</td>
</tr>
<tr>
<td>3</td>
<td>No FOG No Grease Interceptor or Trap, May need one</td>
</tr>
<tr>
<td>4</td>
<td>No FOG No Grease Interceptor or Trap, likely does NOT need one</td>
</tr>
<tr>
<td>5</td>
<td>POG Interceptor</td>
</tr>
<tr>
<td>6</td>
<td>No POG Interceptor, May need one</td>
</tr>
</tbody>
</table>
CRITERIA – Varies by Entity

• Typical criteria that each facility should follow:
  
  • Pumping interceptor/trap at least every **90 days**

  • Pump more often if **FOG/POG ratio** exceeds limit (25% -33%)

  • **Repair or replace** interceptor/trap components

  • **Maintain access** to interceptor/trap for maintenance and routine inspection
CRITERIA – Varies by Entity

Interceptor Sizing

1. UPC – Uniform Plumbing Code

2. DFU – Drainage Fixture Units

3. Categorical Use

4. Existing Conditions
CRITERIA – Varies by Entity

• Review Interval
  • Semi-annual

• Accelerated Reviews (Quarterly)
  • New facilities
  • Facilities that “Fail”
  • “Hot Spot” facilities
Program

- **Office**
  - Database
  - Forms
  - Maps

- **Field**
  - Inspections
  - Public Education and Outreach
PROGRAM

- Office
  - Access Database
  - Contact Info
  - Category
  - Pumper Info
  - Enzyme Use
  - Fixture Count
  - History of Inspections
PROGRAM

- Office
  - Inspection Forms
  - BMP Flyers
  - Summary Reports

[Insert image of a document: Industrial Pretreatment Program - Grease Routine Observation Form]

[Insert text: Kennedy/Jenks Consultants]
• Office - commercial maps
PROGRAM

- Field
  - Inspections
PROGRAM

• A facility “Fails” if:
  - Sludge Judge (1.5” – PVC)
  - Ratio exceeds threshold defined by entity (i.e. 25-33%)

\[
\text{FOG/POG} \% = \frac{\text{Depth } \text{Solids} + \text{Grease}}{\text{Total Depth}}
\]
A facility “Fails” if:

- Mechanical issues
  - Missing Tee fittings
- Manhole lid Issues
- Damaged/misplaced Tee fittings
PROGRAM

• A facility “Fails” if:

  • Not accessible
  • Snow
  • Locked Area
  • Car parked over manhole lid
PROGRAM

- Field
  - Public Education and Outreach
  - Best Management Practices (BMPs)

Do NOT pour oil, grease, or food scraps down drains.

Throw food scraps in the trash.
# PROGRAM

**New Facilities**
- **Office**
  - Engineer Review
  - Coordination
  - Database
- **Field**
  - Installation
  - Dye Test

## New FOG Facility Checklist

<table>
<thead>
<tr>
<th>Facility Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility Name:</td>
<td></td>
</tr>
<tr>
<td>Location:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contact Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td></td>
</tr>
<tr>
<td>Phone:</td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td></td>
</tr>
<tr>
<td>Email:</td>
<td></td>
</tr>
</tbody>
</table>

### Prior to the Construction of the Facility

<table>
<thead>
<tr>
<th>Notified of Facility (entity)</th>
<th>Notified by (person)</th>
<th>Date(s) of Notification</th>
</tr>
</thead>
<tbody>
<tr>
<td>L/E WWTP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centennial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developer/Owner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### At the Time of Interceptor Installation

<table>
<thead>
<tr>
<th>Observation by Kennedy/Jenks Representative</th>
<th>Date(s) of Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interceptor installation</td>
<td></td>
</tr>
<tr>
<td>Dye Test to confirm restrooms are connected to main, not interceptor</td>
<td></td>
</tr>
<tr>
<td>Dye Test to confirm that all drains from the kitchen, food preparation, and dishwashing areas are connected to the grease interceptor</td>
<td></td>
</tr>
</tbody>
</table>

### After Interceptor Installation

<table>
<thead>
<tr>
<th>Action by Kennedy/Jenks Staff</th>
<th>Date(s) of Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add facility to Grease Interceptor Inspection Program database</td>
<td></td>
</tr>
<tr>
<td>Add facility to the SASD Commercial Maps</td>
<td></td>
</tr>
<tr>
<td>Scan the following documents and add to associated line in GIS</td>
<td></td>
</tr>
</tbody>
</table>

**Kennedy/Jenks Consultants**
EXPERIENCE TO DATE

• Reduction of FOG/POG
EXPERIENCE TO DATE

• Issues
  • Identify new facilities or facility changes
  • Busy Restaurants
  • Manifolded (shared) Interceptors
  • Property Management Coordination
  • Language barriers (Telelanguage.com)
CONCLUSION

Prevent, not mitigate, FOG/POG in sanitary sewer system!!!
THANK YOU!

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