Who’s Your Data?

Developing a Data Driven FOG Management Program

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Who’s Your Data? Overview

Build an effective FOG program with minimal staff by

- Identifying the Critical Factor
- Getting Someone Else to Collect Data
- Get a Data Management System
- Using Data to Manage Compliance
- One Program’s Results
Identifying the Critical Factor

Which variable is most critical to controlling the discharge of FOG?

Hint: Follow the money grease…

Culinary profiling?

FSE Management?

GREASE INTERCEPTOR (GI)!!

Food Type?

Kitchen BMPs?
Identifying the Critical Factor

Factors controlling effluent quality

- FOG Accumulation Rate
- Pump Out Quality
- Interceptor Functionality
Identifying the Critical Factor

- People who can actually stand measuring FOG accumulation
- People who understand GI functionality
- People responsible for pump out quality

FSE Staff

Some Utility Staff

Most Utility Staff

Pumpers
Getting Someone Else to Collect Data

Preferred Pumper (PP) Program - Voluntary

PP Responsibilities:
- Quarterly service
- Measure FOG accumulations
- Complete & submit reports for FSE
- Properly pump out GI
Getting Someone Else to Collect Data

How the Preferred Pumper program works:

- **FSE contracts w/ PP**
- **PP measures FOG/solids & inspects GI**
- **PP submits required reports to Utility**
- **Is report timely/accurate?**
  - **YES**
  - **NO**
    - **Utility inspects condition of GI after pump out**
    - **Inspect representative # of PP’s facilities**
  - **Utility works w/ PP to correct**
- **GI in compliance?**
  - **YES**
  - **Restaurant in Compliance**
  - **NO**

Utility works w/ PP to:

- **Correct**
- **Compliance**
Getting Someone Else to Collect Data

**PP Benefits**
- Levels playing field for all pumpers
- Endorsement from utility
- Assured of plenty of business

**FSE Benefits**
- Shifts much regulatory burden to pumpers
- FSE assured of quality service
Getting Someone Else to Collect Data

Utility Benefits:

- Creates a uniform set of rules to measure pumpers
- PP provide plethora of performance measurements
- Staffing requirements geared to overseeing performance of few (PP) not the many (FSE)

Minimize the weak link…….
Get a Data Management System

Data via pump out report – needs to go somewhere

Accumulation
PP measures & records layer depths

Functionality
PP inspects GI condition at each PO

Frequency/Timeliness
Used to schedule next PO date
Get a Data Management System

System Should:

- Track PO due dates
- Calculate solids & FOG accumulation percentages
- Track GI functionality
Get a Data Management System

Establish FOG Program Metrics:

Reduce Commercial FOG Related Sanitary Sewer Overflows (SSO)

- Timely Pump Outs
- Interceptor Accumulation of FOG & Solids
- GI Functionality
- PP Performance
Using Data to Manage Compliance

Step 1: Pump out Frequency/Timeliness

- Software schedules next pump out due date
- Monthly query of late reports
- Notify PP of late reports

Also known as “Meeting People and Making New Friends Step”
Using Data to Manage Compliance

Step 1: Pump out Frequency/Timeliness

Steady enforcement drove more FSE to contract w/ PP.
Using Data to Manage Compliance

Step 2: GI Functionality

Flag malfunctioning GI from PO reports

Now that’s a pretty grease interceptor!
Using Data to Manage Compliance

Step 3: Accumulation Rates

Grease Layer

Food Solids

Liquid Portion

12”

38”

8”

48” total functional depth

20” of 48” occupied by grease & solids = 42%

Software calculates % and establishes pump out frequency
Using Data to Manage Compliance

Step 3: Accumulation Rates
Enforcement encourages BMP adherence

- >25% for 3 pump out cycles
- Increase PO frequency
- Incentivizes BMPs

48” FOG + 8” Solids = BMP, What?
Using Data to Manage Compliance

Step 3: Accumulation Rates

Use data to determine loadings by market segments

Grease/Solids Interceptor Accumulation by Market Segment

- Smoothie Shop: 13%
- Coffee Shop: 36%
- Ice Cream Parlor: 44%
Using Data to Manage Compliance

Step 3: Accumulation Rates – Party Games!

Let's Make a Meal!

Other Popular Interceptor Games:
- Family FOG
- Wheel of Fortune Cookie
- The Fries is Right
Using Data to Manage Compliance

Step: Somewhere Near the Beginning: Pumper Performance

Focusing on Pumpers leads to dramatic improvement in pump out performance

Pumper “C” gets special attention
Using Data to Manage Compliance

Step 4: Use metrics to focus enforcement efforts

Quarterly review of program metrics
One Program’s Results

Cumulative % FOG & Solids

# Commercial FOG Related Sewer Spills

% Traps Reported Malfunctional
One Program’s Results

These results were achieved with:

- An FSE population of ~3000
- No increase in utility budget for program or additional fees for FSEs
- 1.5 full time employees
One Program’s Results

Effective FOG Programs can be implemented w/ minimal staff by:

- Identifying the critical factor
- Utilizing data to focus compliance efforts
- Regulating many FSE through a few Preferred Pumpers
Thank You

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