Captain Plunger to the Rescue
How New Bedford Transformed Their IPP and FOG Program Using Outreach and Technology

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Zeb Arruda

June 7, 2016
Presentation Outline

- Family History
- The Birth of Captain Plunger
- Captain Plunger Saves the Day
- Captain Plunger Continues the Fight...
Close Relatives of Captain Plunger

[Image: Cartoon of Snoopy and Woodstock]

[Image: Poster saying "What's cooler than being cool? Having a library card. Get yours today! September is Library Card Sign-up Month!"

i lov libraries.org/library-card

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AL A
Close Relatives of Captain Plunger

Captain Plunger to the Rescue
Close Relatives of Captain Plunger
Background

SANITARY SEWER COMPLIANCE INSPECTION

City of New Bedford, Massachusetts

REPORT DATE: September 19, 2011
EVALUATION CONDUCTED: July 13-14, 2011

Office of Enforcement and Compliance Assurance
Water Enforcement Division
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

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SANITARY SEWER COMPLIANCE INSPECTION

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

IN THE MATTER OF:
City of New Bedford
New Bedford, Massachusetts
NPDES Permit No. MA0100781

DOCKET NO. 12-410
FINDINGS OF VIOLATION
AND
ADMINISTRATIVE ORDER

I. STATUTORY AUTHORITY

The following FINDINGS are made and ORDER (“Order”) issued pursuant to Sections 308(a) and 309(e)(3) of the Clean Water Act, as amended (the “Act”), 33 U.S.C. §§ 1311 and 1319(d), Section 1306(a)(3) of the Act grants to the Administrator of the U.S. Environmental Protection Agency (“EPA”) the authority to issue orders requiring persons to comply with Sections 301, 302, 306, 307, 308, 318, and 405 of the Act and any permit condition or limitation implementing any of such sections in a National Pollutant Discharge Elimination System (“NPDES”) permit issued under Section 402 of the Act, 33 U.S.C. § 1342. Section 308(a) of the Act, 33 U.S.C. § 1311(a), authorizes EPA to require the submission of any information required to carry out the objectives of the Act. These authorities have been delegated to the EPA, Region I Administrator, and in turn, to the Director of the EPA, Region I Office of Environmental Stewardship (“Director”).

The Order herein is based on findings of violation of Section 301 of the Act, 33 U.S.C. § 1311, and the conditions of NPDES Permit No. MA0100781. Pursuant to Section 308(a)(3)(A) of the Act, 33 U.S.C. § 1319(d)(3)(A), the Order provides a schedule for compliance that the Director has determined to be reasonable.

II. DEFINITIONS

Unless otherwise defined herein, terms used in this Order shall have the meaning given to those terms in the Act, 33 U.S.C. §§ 1251 et seq., the regulations promulgated thereunder, and any applicable NPDES permit. For the purposes of this Order, “NPDES Permit” means the City of New Bedford’s NPDES Permit, No. MA0100781, and all amendments or modifications thereto and renewals thereof as are applicable and in effect at the time.
Updates to Existing CMOM Program

- AO led to development of updated and enhanced CMOM program from prior program developed in 1993
- Embracing CMOM program as an opportunity to create efficiencies and expand system knowledge
- Technology advancements and data collection
- Formation of formal IPP and FOG department
- Public Outreach
Highlights of IPP and FOG Programs

- Over 570 food handling facilities in the City
- 10 categorical and 19 industrial users in the City regulated under EPA’s IPP program
- Two staff dedicated to program
- Annual reporting requirements
- FOG ordinance promulgated in October 2015
The Birth of a Superhero

- Embraced public outreach efforts as a mechanism to improve system operations
- Reaching out to community for input and involvement
- Utilizing both regional and local avenues for outreach and communications
The Birth of a Superhero (Cont.)

- Coordinated through City’s IPP and FOG program
- Partnership with New Bedford Vocational High School graphic arts students and faculty
  - Super hero character
  - Information boards, handouts, and flyers
- Engineering and IPP/FOG Departments sponsor high school and college internships
The Birth of a Superhero (Cont.)
Public Outreach and Education Starts at School

- Presentations to elementary school children
- Interactive demonstrations and engagement
- Simple but effective....
Captain Plunger to the Rescue

Internship Program Strengthens DPI Team
Developing a Strong Brand

- Branding of Captain Plunger and DPI’s FOG/IPP programs
- Cease the Grease Campaign
- Using Voc Tech visual design students to develop graphics, presentation material, and informational flyers
- Associates concept with goals
Cease The Grease Campaign

Captain Plunger to the Rescue

Be a superhero just like Me
Be careful what you send to the Sea
Cease The Grease Campaign (Cont.)

Where did you GREASE come from?

NEVER POUR OIL OR GREASE DOWN THE DRAIN

Scrape dishes into the garbage before washing. Wipe dishes with a dry paper towel to remove any remaining grease before washing. Cover sink drains with a strainer to catch food scraps. Many items are advertised as "flushable," but do not break apart causing a blocked drain. Home owners are responsible for their property's sewer pipes. Improper flushing can cost you money.

You flush it, you pay for it.

Captain Plunger

Cease The Grease!
New Bedford DPI
Paper, Paper, Everywhere!!

- Inefficiencies in data tracking and program operations
- Space constraints
- Expansion of the FOG program required a change in operations
- Manual labor and data entry to PreWin
IPP and FOG Programs in the 21\textsuperscript{st} Century

• Technological improvements to drive efficiencies and system data collection, tracking, and management
• CMMS system enhancements
• Geographical Information System
  – Robust system updated to current ESRI standards
  – Record drawings and asset information
  – Restaurant and IPP locations in GIS
  – Linkage to CMMS system
• Inspections through CMMS system using iPads and custom applications
• New EPA regulations regarding electronic reporting (CROMERR)
CMOM in the 21st Century (Cont.)

CITY OF NEW BEDFORD DPI
FOG PROGRAM INSPECTION FORM

Part 1 - FACILITY INFORMATION
Company Owner:
Contact Person:
Phone number:
Contact's cell number:
Contact's e-mail:
Type of Food Service:
# of Grease Traps:
Type of Grease Trap:
Brand of Grease Trap:
Size of Grease Trap:
Hours of operation:

Menu on site?
Drive through window?
Delivery Service?

Seating Capacity:

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Part 2 - GREASE TRAP MAINTENANCE

1. Changes made to unit since installation/last inspection?
   Yes No
   If Yes, detail changes:

2. Is the unit accessible?
   Yes No

3. Has the FSE implemented a training program to ensure that the
   BMPs are followed?
   Yes No

4. Does the FSE recycle the grease?
   Yes No

5. Does the FSE have records of grease removal?
   Yes No N/A

6. Are outdoor grease containers closed or covered?
   Yes No N/A

7. Are there any storm drains near outdoor containers?
   Yes No N/A

8. Does the FSE "dry wipe" utensils prior to washing?
   Yes No

9. Is food waste disposed of in garbage/recycle bins?
   Yes No

10. Are streamers for solid wastes in drains?
    Yes No

11. Is grease trap cleaning documented on a log?
    Yes No

12. Is a Cleaning/Inspection Log posted by each Trap?
    Yes No

13. Is grease trap cleaned at least once per month?
    Yes No

14. Frequency of cleaning

15. Grease trap does not contain >3/4 depth of grease?
    Yes No

16. Grease trap does not contain >1/4 depth of sediment?
    Yes No

17. The City has had blocked sanitary sewer lines traceable to FSE?
    Yes No
CMOM in the 21st Century (Cont.)

**City of New Bedford DPI**  
**FOG Program Inspection Form**

### Part 1 - Facility Information
- **Company Owner:** [Name]  
- **Contact Person:** [Name]  
- **FSE telephone number:** [Number]  
- **Contact’s cell number:** [Number]  
- **Contact’s e-mail:** [Email]

**Type of Food Service:**
- [ ] Under sink in ground
- [ ] In ground

**Type of Grease Trap:**
- [ ] Underground
- [ ] Above ground

**Brand of Grease Trap:**
- [ ] Brand A
- [ ] Brand B

**Size of Grease Trap (gallons):** [Size]

**Hours of Operation:**

<table>
<thead>
<tr>
<th>Mon</th>
<th>Tues</th>
<th>Wed</th>
<th>Thurs</th>
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**Seating Capacity:**
- [ ] persons

**Menu on file?**
- [ ] Yes
- [ ] No

**Drive through window?**
- [ ] Yes
- [ ] No

**Delivery Service?**
- [ ] Yes
- [ ] No

### Part 2 - Grease Trap Maintenance

1. Changes made to unit since installation/last inspection?  
   - [ ] Yes  
   - [ ] No

   If Yes, detail changes:

2. Is the unit accessible?  
   - [ ] Yes  
   - [ ] No

3. Has the FSE implemented a training program to ensure that the
   BMPs are followed?  
   - [ ] Yes  
   - [ ] No

4. Does the FSE recycle the grease?  
   - [ ] Yes  
   - [ ] No

5. Does the FSE have records of grease removal?  
   - [ ] Yes  
   - [ ] No  
   - [ ] N/A

**Recycling Company:**
- [ ] Name

6. Are outdoor grease containers closed or covered?  
   - [ ] Yes  
   - [ ] No  
   - [ ] N/A

7. Are there any storm drains near outdoor containers?  
   - [ ] Yes  
   - [ ] No  
   - [ ] N/A

8. Does the FSE “dry wipe” utensils prior to washing?  
   - [ ] Yes  
   - [ ] No  
   - [ ] N/A

9. Is food waste disposed of in garbage/recycle bins?  
   - [ ] Yes  
   - [ ] No

10. Are strainers for solid wastes in drains?  
    - [ ] Yes  
    - [ ] No

11. Is grease trap cleaning documented on a log?  
    - [ ] Yes  
    - [ ] No

12. Is a Cleaning/Inspection Log posted by each Trap?  
    - [ ] Yes  
    - [ ] No

13. Is grease trap cleaned at least once per month?  
    - [ ] Yes  
    - [ ] No

**Frequency of cleaning**

    - [ ] Yes  
    - [ ] No

15. Grease trap does not contain >1/4 depth of sediment.  
    - [ ] Yes  
    - [ ] No

16. The City has had blocked sanitary sewer lines traceable to FSE.  
    - [ ] Yes  
    - [ ] No
Captain Plunger Continues the Fight

- Track system operations improvements in areas prone to grease and flushable issues through GIS and CMMS
- Track food handling facility and industrial user compliance
- Reduced operations costs and violations
- Education tool