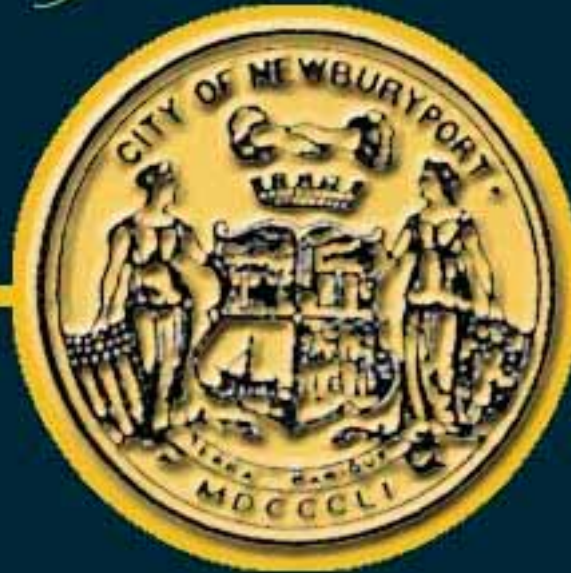


City of Newburyport



SEWER DEPARTMENT



City of Newburyport

How to Establish a FOG Program That Works

Presented by:

Newburyport Sewer Department

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Sewer System Components

- System Dates Back to the Late 1800s
- 1,580 Sewer Manholes
- 320,000 LF of Pipe
 - 6 inch to 36 inch
- 16 Lift Stations and 24,000 LF of Force Main
- 6,500 Service Connections
- 19 Subareas
- 3.4 MGD WWTF



The Problem

- Many regular & overtime hours spent addressing sewer blockages
- Operations affected at WWTF
 - Odors
 - Floating Material
- FOG accumulation in L.S. Wetwells



Cost Impacts to Department

- Labor
 - To free blockages
 - To remove accumulation
- Maintenance to equipment
- Odor complaints
- Moving it down the line creates multiple costs
 - L.S.
 - WWTF



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Develop a FOG Control Program

Realize:

- One size does not fit all
- Opinions will differ
- Internal inertia



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The Program

1. Public Education

- Public meetings, workshops, City Council, press release, Website, notice in sewer bills, cable TV, and mailers
- WEF FOG Reduction Brochure
- Workshop
- Invite vendors to display products



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The Program

2. Determine an Enforceable Method



The Program

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- A limit above which would cause:
 - Collection system problems
 - WWTF problems (local limit)



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- Newburyport chooses local limit
 - Most defensible
 - Calculations similar to pretreatment standards



The Program

2. Determine an Enforceable Method

- A limit above which would cause:
 - Collection system problems
 - WWTF problems (local limit)
- Newburyport chooses local limit
 - Most defensible
 - Calculations similar to pretreatment standards
- In lieu of limit calculation – use 100 mg/l (State)



The Program

3. How Do You Enforce It?

- Sample? Inspect? How often? Split sample?
- Do you have the staff?
- Jurisdiction (Sewer or Board of Health)
- Create an ordinance or policy



The Program

4. Inspect Restaurants

- State Plumbing Code
- Enforced by Board of Health
- Verify requirements being met
 - Designed properly
 - Installed properly
 - Maintained (cleaning, bills of lading)
- Newburyport experience
- Verify each trap has a location where a sample can be taken



The Program

5. Sample

- If they exceed limit:
 - Verify designed & installed properly
 - If both done properly, it's a maintenance issue (fine more defensible)
- Consider giving restaurant time to get into compliance
- Consider a stepped fine system



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The Program

6. Sample on a frequent basis

7. Publicize improvements & cost savings



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The Program

8. You may get challenged legally (fines stay in project account)



The Program

9. Other Issues

a. Operating Permits for Restaurants

b. CMOM

Track data



The Program

9. Other Issues

a. Operating Permits for Restaurants

b. CMOM

Track data

What happens if there is an SSO and:

The community has no FOG Control Program?

The sewer hasn't been cleaned in several years?



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The Program

Finally – STAY WITH IT!

Memorialize for future employees

Keep costs in operating budget



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The Findings

- Reduction in OT hours
- Reduced odor complaints at WWTF



The Findings

- Reduction in OT hours
- Reduced odor complaints at WWTF
- No FOG related SSOs since implementation
- Educated customer base
- CMOM compliance



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Conclusions

Through a modest initial investment and a minor O&M investment, sewer departments can control the impact FOG related issues have on their departments and, just as importantly, the impact FOG has on our customers.