STAFF REPORT

FATS, OILS, AND GREASE PROGRAM WORKSHOP

September 20, 2011

On Tuesday, September 20, staff from Water and Pollution Control, Public Works/Operations, and Fire/Inspections will present City Council members with an overview of the city's Fats, Oils, and Grease (FOG) control program.

FOG control has long been a requirement in Ames. However, grease-related blockages do still occur, creating problems for our customers. Further, the impact of FOG as a contributing factor in sanitary sewer overflows is becoming a point of significant emphasis by state and federal regulators. Staff recommends that a pro-active update to the Ames FOG program be undertaken. The purpose of the update would be to clarify the requirements of the existing program, as well as to increase the effectiveness of existing requirements. Addressing these needs proactively will allow the Council to establish policies and practices locally, as opposed to having outside regulators impose FOG requirements on the community.

The approach being taken by City staff is that the Ames community needs a FOG program that accomplishes three goals simultaneously; namely,

- protecting public health and the environment,
- preserving a business climate where commerce can thrive, and
- ensuring sewer service rates that are reasonable and affordable.

The presentation on September 20 is intended to share with Council the need for updating the current requirements and to lay out a process to be used in preparing the update. **A key element of that process will include a partnership with customers who have an interest in this subject.**

The workshop presentation will include a high-level overview of the types of FOG control elements that are frequently included in other communities' programs. Staff will share sample FOG programs from other communities that span a wide spectrum of possible options, touching on the following program elements.

- Customer classes to which the program requirements could apply
- Types of permissible FOG control devices
- Sizing requirements for control devices
- On-going maintenance requirements after installation
- Triggers for re-evaluation of existing installations
- Equitable ways to allocate costs of the program

The purpose of the workshop is not to bring a fully-developed program to Council for approval or endorsement. No decision has yet been made as to which program elements to include or exclude when revising the Ames program. **Staff is not seeking**

specific policy decisions from Council at this time. However, to whatever extent Council forms conclusions on program elements they would specifically like to have included or excluded, Council's direction at this time would be beneficial and welcome.

A preview copy of the Power Point that will be presented on Tuesday evening is attached. Also, shared below are several definitions from the City's adopted 2009 Uniform Plumbing Code that may be useful during the discussion.

Grease Interceptor

A plumbing appurtenance or appliance that is installed in a sanitary drainage system to intercept nonpetroleum fats, oil, and greases (FOG) from a wastewater discharge.

Hydromechanical Grease Interceptor

A plumbing appurtenance or appliance that is installed in a sanitary drainage system to intercept nonpetroleum fats, oil, and grease (FOG) from a wastewater discharge and is identified by flow rate, and separation and retention efficiency. The design incorporates air entrainment, hydromechanical separation, interior baffling, and/or barriers in combination or separately, and one of the following:

A – External flow control, with air intake (vent): directly connected
B – External flow control, without air intake (vent): directly connected
C – Without external flow control, directly connected
D – Without external flow control, indirectly connected
[These interceptors comply with the requirements of Table 10-2.]
Hydromechanical grease interceptors are generally installed inside.

Flow Control

A device designed to limit the volume of water per period of time entering a hydromechanical interceptor expressed in gallons per minute.

Gravity Grease Interceptor

A plumbing appurtenance or appliance that is installed in a sanitary drainage system to intercept nonpetroleum fats, oils, and greases (FOG) from a wastewater discharge and is identified by volume, thirty (30) minute retention time, baffle(s), not less than two (2) compartments, a total volume of not less than three-hundred (300) gallons, and gravity separation. [These interceptors comply with the requirements of Chapter 10 or are designed by a registered professional engineer.] Gravity grease interceptors are generally installed outside.

Concepts for a fats, oils, and grease program

September 20, 2011

Workshop Overview

- Staff introductions
- Why we're here
- Current situation in Ames
- Other Iowa programs
- Key elements
- Wrap up

News Headlines

- Elmhurst, IL – Complaint filed with Attorney General
- AG could fine Elmhurst $50,000 for each violation and $10,000 per day of violation.
- Grease clogged an eight-inch pipe causing 1,700 gallons of untreated wastewater to spill into the Wahiawa Botanical Gardens.

News Headlines

- Duluth, MN
- 2003 saw unprecedented number of overflows
- 2004 Administrative order – required plan to eliminate overflows
- 2009 consent decree
  - 15 year plan
  - $130 million in improvements
  - $400,000 civil penalties

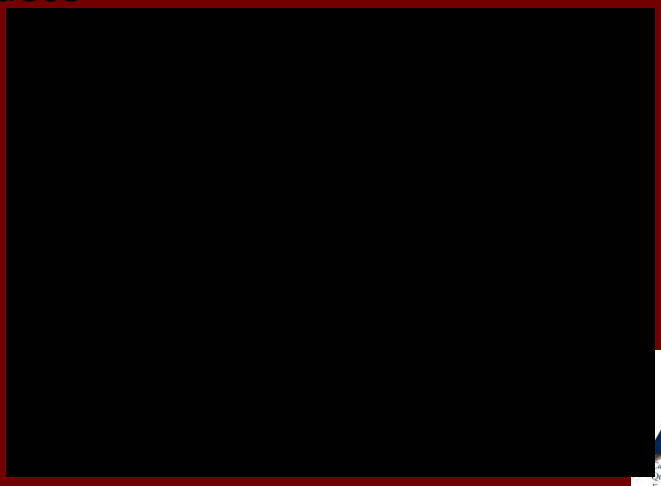
In Ames

- Three restaurants shut down because of sewer backup
  - Backup from grease blockage traced to fourth restaurant upstream
- Bank had sewage back up into building
  - Grease blockage caused backup
  - $60,000 in damages

Need for program

- Protect public health
- Protect environment
- Reducing blockages and sewer overflows
- Equitably distribute collection and treatment costs to our customers

- Videos



Key players

- Cooperative effort
- Multi department City team
  - Inspections
  - Public Works Operations
  - Water and Pollution Control
- Involvement from food service establishments

Update on program

- First meetings Oct 20 & 21, 2010
  - What is FOG?
  - Why is it a problem?
  - Ways to minimize FOG in collection system
  - Example ordinances
- More research on other program criteria
- Identified key elements to program
  - Feedback

Understanding the need

- Current situation in sewer system
  - Damage to neighbors
  - Cost to others
  - EPA & IDNR enforcement
- FOG prevention
  - What can be done to prevent this?

Evolution of code changes

- Uniform Plumbing Code
- '03 code
  - 200+ local amendments
- '06 code
  - Subcommittee evaluated amendments
  - More business friendly by minimizing amendments

Terminology

- 2006 UPC
- UPC requires capturing grease…
- Old terminology "grease trap"
- Current terms:
  - Hydromechanical grease interceptor
  - Gravity grease interceptor

2009 UPC

- FOG is to be intercepted from …
  - Grease waste line(s) leading from sinks and drains, such as floor drains, floor sinks and other fixtures or equipment in serving establishments such as restaurants, cafes, lunch counters, cafeterias, bars and clubs, hotels, hospitals, sanitariums, factory or school kitchens, or other establishments where grease is introduced into the drainage or sewage system in quantities that can effect line stoppage or hinder sewage treatment or private sewage disposal.

2009 UPC

- Any combination of hydromechanical, gravity grease interceptors and engineered systems shall be allowed in order to meet this code and other applicable requirements of the Authority Having Jurisdiction when space or existing physical constraints of existing buildings necessitate such installations.
- Inspections requested IAPMO interpretation

Programs around Iowa

- Iowa City
- Muscatine
- Des Moines WRA-encompasses DM metro, suburbs, Ankeny

Key elements

- Extent of program
  - Iowa Code Chp 137F – food service establishment: "…an operation that stores, prepares, packages, serves, vends, or otherwise provides food for human consumption…"
  - UPC - A grease interceptor … shall be installed in any business establishment with kitchen facilities including restaurants, cafes, lunch counters, cafeterias, supermarkets, convenience stores, bakeries, bars and clubs, hotels, hospitals, sanitariums, factory or school kitchens, or any other commercial establishment where grease may be introduced into the sewer system

Key elements

- Grease removal equipment
  - Sizing requirements
    - UPC sizing requirements changed from 2003 to 2009
    - Seating capacity, hours of operation, fixture units, kitchen equipment
  - Types of allowed equipment
    - Minimum size?
    - Internal?
    - External?
    - Application (restaurant type) specific installation?

Key elements

- Grease removal equipment (cont)
  - Maintenance requirements
    - Maintain in good working order - UPC
    - Amount of maintenance required – does it depend on application? Manufacturer's requirements?
    - Documentation – what would be needed?
    - Inspection
    - Sampling
    - Private property access

Key elements

- When should compliance occur?
  - New
    - All new business?
  - Remodel
    - Dollar threshold
    - Types of building permits
    - Kitchen modifications
    - Menu modifications
  - Change of business or owner
  - Existing businesses
    - Allowed to continue "as is" – unless problems occur
    - Time limit for compliance
    - Comply with effective date of program

Key elements

- How to educate, inspect, review documentation
  - How to ensure compliance?
  - Inspection/education position?

Key elements

- Equitable way to allocate costs/incentives
  - Business grants
  - Evaluate fees at WPC
  - Tiered sewer fees

Next steps

- Complete research into other FOG programs;
- Meet with FSE's to get reaction to specific concepts and examples;
- Develop a hypothetical program and share with FSE's;
- Incorporate feedback and present to Council; Target-September 2012.

Questions or comments?