

**COUNCIL ACTION FORM**

**SUBJECT:**           **FATS, OILS, AND GREASE CONTROL ORDINANCE**

**BACKGROUND:**

Fats, Oils, and Grease (FOG) is a wastewater pollutant that contributes to sewer blockages, environmental and health concerns, and economic losses. FOG can be introduced into wastewater from a variety of sources, although restaurants can be major contributors. The City's Plumbing Code has requirements for installation of grease interceptors or traps in new restaurants and upon certain upgrades to existing restaurants. However, the Plumbing Code does not address ongoing cleaning and maintenance of that equipment, nor does it address other practices that should be used to reduce the introduction of FOG into the public sewer system.

Since 2010, City staff has been working on the development of a FOG Control Program that addresses the problems that FOG causes in the collection system and at the Water Pollution Control Facility. During this time there have been multiple rounds of stakeholder engagement, with each round resulting in improvements and refinements to craft a program that meets the unique needs of the City of Ames and its customers.

The process began in October 2010 with the first public meetings on the topic. In September 2011, a City Council Workshop was held in which City staff gave background on FOG, options that are available for FOG control, and proposed next steps. Research and additional stakeholder engagement continued through 2012 and 2013.

In October 2013, a survey was sent to all local Food Service Establishments (FSEs) to learn about current FOG practices, as well as thoughts and preferences for development of a local FOG Control Program. In January 2014 two public meetings were held on the development of the FOG Control Program. All stakeholder input was then taken into account by the team of City staff working to develop the FOG Control Program.

In April 2014, City staff presented the City Council with a concept for a FOG Control Program. Following that presentation, the City Council directed staff to draft a FOG Control Ordinance. Staff prepared an ordinance and presented it to the FSEs in two meetings held on October 15, 2014. Fourteen individuals were in attendance at those meetings representing different FSEs.

**It should be noted that, during the multiple rounds of stakeholder engagement, very little opposition to the purpose or intent of the ordinance was expressed to City staff by area Food Services Establishments. Understandably, there were**

**questions about how best to comply without becoming burdensome either in cost or paperwork. Several existing restaurants have expressed strong support for the program, and have been complimentary of the flexible approach being taken by the City.**

City staff has prepared the attached ordinance designed to ensure that FOG discharge into the sanitary sewer system is reduced. The proposed ordinance includes the following key elements:

1. All state-licensed food service establishments would be subject to a new wastewater surcharge rate, called a *Restaurant Surcharge*. ***However, FSEs could receive an exemption from the Restaurant Surcharge (and therefore pay the normal wastewater rate) through any one of three methods outlined in the FOG Control Ordinance.*** Exemptions would apply for a six month period based on verification provided by the FSE in the preceding six month period. The three methods to qualify for an exemption are as follows:
  - a. **Cleanout Exemption.** The FSE provides records from a grease hauler indicating that the grease interceptor has been cleaned out, that it was in good repair, and that the interceptor averaged less than 25% full at the time of the cleaning (with no single instance of an interceptor being more than 35% full).
  - b. **FOG Strength Exemption.** The FSE has been plumbed with a grab sample port, and has conducted a laboratory test for Oil and Grease during its busy hours. The test result must indicate an Oil and Grease concentration of less than 300 mg/L.
  - c. **Best Practices Exemption.** The FSE maintains a logbook of its activities related to FOG control. The logbook includes activities such as training, installation of warning signage, and interceptor cleanout and maintenance. This logbook would be spot-checked for compliance by City staff.
2. Add FOG as a measured pollutant in the existing High-Strength Wastewater Surcharge Program. This program is in place for the few customers whose wastewater discharge exceeds normal domestic strength. The customers' wastewater is sampled at intervals to determine the content, and the customers pay surcharges based on the cost to treat those pollutants. Under this revision, any customer with a surcharge rate calculated through the High-Strength Wastewater Surcharge Program, that also has a licensed food service establishment, would have a surcharge rate calculated on wastewater exceeding normal domestic strength for Oil and Grease.
3. The City would be authorized to inspect the plumbing or observe the FOG practices of an FSE on rare occasions when evidence is found of FOG

accumulation in the sewer system that may reasonably be believed to have come from that FSE.

4. Increase the penalty for causing a sewer blockage from a fine of \$1,000 to the fine plus the cost of cleanup. If the blockage can be attributed to several customers, the cost of cleanup can be pro-rated among the utility customers responsible for the blockage.
5. The Restaurant Surcharge would be initially set at \$0.00/100 cubic feet during the implementation period. This provides a 'trial period' where restaurants can learn how best to achieve compliance with the ordinance without becoming subject to the surcharge. However, all customers would immediately be subject to the changes in the penalty for actually causing a sewer blockage.

**IMPLEMENTATION TIMELINE:**

The implementation of this ordinance change is unique due to the way it provides FSE's a year-long window to learn how best to comply with the program requirements before any surcharge fee would be implemented. City staff is proposing the following timeline.

|                   |  |
|-------------------|--|
| October 28, 2014  | First reading of ordinance   |
| November 10, 2014 | Second reading of ordinance  |
| November 25, 2014 | Final reading and adoption of ordinance  |
| January 1, 2015   | Ordinance becomes effective, but with no surcharge rate.   |
| January 1, 2016   | Surcharge rate becomes effective.  |
| July 1, 2016      | FSE's who failed to comply with the ordinance during the first half of 2016 would receive their first bill with a surcharge added. |

During this period, FSE's will receive reminder letters from the City informing them that a deadline is approaching to provide verification/certification of compliance during the prior six months. Surveys will also be sent to FSEs during this period to continue to gauge the ease and cost of compliance. Periodic written updates will also be provided to the City Council during the first year.

Staff plans to return to Council in late 2015 to insert the Restaurant Surcharge into the Municipal Code, and to potentially make other modifications to the ordinance based on the feedback gathered during the implementation period.

While reviewing the proposed ordinance, two minor errors in the existing ordinance were discovered that are not related to FOG. The proposed ordinance also corrects those errors.

**ALTERNATIVES:**

1. Approve the attached ordinance implementing a Fats, Oils and Grease Control Program.
2. Direct City staff to modify the attached ordinance.
3. Do not approve the ordinance implementing a Fats, Oils and Grease Control Program.

**MANAGER'S RECOMMENDED ACTION:**

An effective fats, oils and grease control program will improve the operation of the City's sanitary sewer collection system and Water Pollution Control Facility, will decrease the likelihood of environmental damage, and will reduce hazards to human health. Over the last several years, staff has evaluated programs from several other communities. City staff has also worked extensively with local restaurants and grease haulers to receive feedback and suggestions, many of which have been incorporated into the proposed ordinance. The overall response from local FSE's has ranged from neutral to very supportive.

The proposed program implements a Restaurant Surcharge of \$0.00/100 cubic feet during the 2015 implementation period, allowing time for restaurant operators to understand the process and develop internal procedures for compliance. This period also allows City staff the opportunity to gather information about the program implementation and to receive feedback on how the program is working before requesting approval from City Council to adopt the actual Restaurant Surcharge rate a year from now.

**Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, thereby approving the attached ordinance implementing a Fats, Oils and Grease Control Program.**

### FOG Ordinance Implementation Timeline

|      | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct                     | Nov                                 | Dec |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------------------|-------------------------------------|-----|
| 2014 |     |     |     |     |     |     |     |     |     | First Ordinance Reading | Second and Third Ordinance Readings |     |

|      | Jan   | Feb | Mar | Apr | May | Jun | Jul  | Aug | Sep | Oct | Nov | Dec |
|------|---|-----|-----|-----|-----|-----|--|-----|-----|-----|-----|-----|
| 2015 | <b>First Submittal Review Period,</b><br>Education/Outreach |     |     |     |     |     | <b>Second Submittal Review Period,</b><br>Simulated billing each month based on submittals from <u>first review period</u> |     |     |     |     |     |
|      | Ordinance in Effect   |     |     |     |     |     | Staff analyzes data from first two review periods, develops surcharge rate and identifies any needed modifications         |     |     |     |     |     |

|      | Jan  | Feb | Mar | Apr | May | Jun | Jul   | Aug | Sep | Oct | Nov | Dec |
|------|--|-----|-----|-----|-----|-----|---|-----|-----|-----|-----|-----|
| 2016 | <b>THIRD SUBMITTAL REVIEW PERIOD (SURCHARGE IN EFFECT NEXT CYCLE UNLESS EXEMPT),</b><br>Simulated billing based on submittals from <u>second review period</u> |     |     |     |     |     | <b>SURCHARGES APPLY FOR NON-COMPLIANCE BASED ON SUBMITTALS FROM THIRD REVIEW PERIOD,</b><br>Review periods continue on six-month cycles |     |     |     |     |     |

**ORDINANCE NO.**

**AN ORDINANCE TO AMEND THE MUNICIPAL CODE OF THE CITY OF AMES, IOWA, BY REPEALING SECTIONS 28.302(5), 28.304(1), 28.304(8)(D), APPENDIX N CHAPTER 28, UTILITIES SECTION 28.306, APPENDIX Q, WATER METER DIVISION HIGH-STRENGTH SURCHARGE RATES AND ENACTING NEW SECTIONS 28.302(5),(18),(19), (20), 28.304(1), 28.304(8)(D), (11), 28.306 (11), 28.308 AND APPENDIX N CHAPTER 28, UTILITIES SECTION 28.306, APPENDIX Q WATER METER DIVISION HIGH-STRENGTH SURCHARGE RATES THEREOF, FOR THE PURPOSE OF ESTABLISHING A FATS, OILS, AND GREASE CONTROL PROGRAM ; REPEALING ANY AND ALL ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT TO THE EXTENT OF SUCH CONFLICT; AND ESTABLISHING AN EFFECTIVE DATE.**

**BE IT ENACTED**, by the City Council for the City of Ames, Iowa, that:

**Section One.** The Municipal Code of the City of Ames, Iowa shall be and the same is hereby amended by enacting a new Sections 28.302(5),(18),(19), (20), 28.304(1), 28.304(8)(D), (11), 28.306 (11), 28.308 as follows:

**“Sec. 28.302. DEFINITIONS.**

...

(5) **‘Normal Domestic Wastewater’** shall mean, for the purposes of surcharge Program implementation, wastewater that has constituent concentrations at or below the values shown in the following table, expressed in milligrams per liter (mg/L).

| <u>Constituent</u>     | <u>Concentration,mg/L</u> |
|------------------------|---------------------------|
| Oxygen Demand          |                           |
| CBOD <sub>5</sub>      | 250                       |
| COD                    | 550                       |
| Nitrogen               |                           |
| NH <sub>3</sub> -N     | 30                        |
| TKN                    | 45                        |
| Solids                 |                           |
| TSS                    | 300                       |
| Fats, Oils, and Grease |                           |
| Oil and Grease         | 300                       |

...

(18) **‘FOG’** (denoting Fats, Oils, and Grease) shall mean organic polar compounds derived from animal and/or plant sources that contain multiple carbon chain triglyceride molecules. These substances are detectable and measurable using analytical test procedures in 40 CFR 136, as may be amended from time to time. All are sometimes referred to herein as “grease”, “greases”, and “oil and grease”.

(19) **‘FSE’** (denoting Food Service Establishment) shall mean an operation or enterprise that stores, prepares, packages, serves, vends, or otherwise provides food for human consumption, and which is licensed by the state of Iowa for such activities. Such facilities may include, but are not limited to, those that process meat or other food ingredients as an intermediate step or for final human consumption, food service operations in a summer

camp, residential substance abuse treatment facility, halfway house, correctional facility, school, restaurant, commercial kitchen, caterer, church, hotel, hospital, prison, correctional facility, care institution or similar facility.

(20) **‘Grease Interceptor’** shall mean a tank that serves one or more fixtures and captures wastewater from garbage disposals, floor drains, pot and pan sinks and trenches as allowed by local plumbing codes. Dishwashers may in some instances also be connected to a grease interceptor as allowed by local plumbing codes. A grease interceptor reduces the amount of FOG in wastewater prior to its discharge into the POTW and may be a multi-compartment tank located underground or a small device located within a building.

...

**Sec. 28.304. SEWER RATES ESTABLISHED.**

(1) Each user shall pay for the services provided by the City based on its use of the treatment works as determined by water meter readings or other appropriate methods acceptable to the City.

...

(8)

...

(d) The sewer service charge will be billed only on the difference between the water meter reading and the yard meter reading.

...

(11) For those users which operate Food Service Establishments licensed by the state of Iowa, a Restaurant Surcharge, in addition to the normal user charge, shall be collected. The Restaurant Surcharge shall be listed in Appendix Q. Customers who participate in the City of Ames Non-Domestic Waste Pretreatment Program shall not be subject to the Restaurant Surcharge, but will instead be assessed a High-Strength Surcharge Rate that includes the surcharge for Oil and Grease as calculated based on their sampling results.

...

**Sec. 28.306. GENERAL PROHIBITIONS FOR WASTE DISPOSAL IN THE SEWER.**

...

(11) Any additive or emulsifier designed for the purpose of reducing the accumulation of Fats, Oils, and Grease in plumbing, grease interceptor equipment, or the POTW, except those additives or emulsifiers that have been approved for such use by the Director of Water and Pollution Control.

...

**Sec. 28.308 FATS, OILS, AND GREASE CONTROL PROGRAM.**

The purpose of this section shall be to aid in the prevention of sanitary sewer blockages and obstructions from contribution and accumulation of Fats, Oils, and Grease (FOG) into the POTW. Such discharges from commercial kitchens, restaurants, food processing facilities and all other establishments, where FOG of vegetable or animal origin is discharged directly or indirectly into the POTW, can contribute to line blockages and/or spills in violation of Title 40, Code of Federal Regulations 40 CFR, Part 403, as it may be amended from time to time.

(1) Any customer which operates a Food Service Establishment (FSE) licensed by the state of Iowa, and which is connected to the City’s Treatment Works, shall be subject to the FOG Control Program.

(2) Any costs for compliance with the regulations set forth in the FOG Control Program shall be the responsibility of the customer.

(3) FSEs subject to the FOG Control Program may apply for exemption from the Restaurant Surcharge. Exemptions shall utilize evidence gathered in the preceding six (6) month period to determine whether an FSE is exempt from the Restaurant Surcharge for sewer bills mailed during the following six (6) month period. Exemption periods shall be from January to June and from July to December.

(4) The Director of Water and Pollution Control, or designee, may exempt an FSE from the Restaurant Surcharge for a six (6) month period if one of the following criteria is met during the preceding six (6) month period:

(a) Submission of records from a contractor who specializes in the disposal of restaurant grease. Such records shall include the following information:

(i) The name and employer of the individual performing the grease interceptor cleaning(s).

(ii) The date(s) on which grease was removed from each grease interceptor controlled by the customer.

(iii) The quantity of grease removed during each cleaning. In the case of a gravity-flow grease interceptor, the quantity of grease shall be calculated by comparing the depth of the floating fats, oils, and grease, plus the depth of the accumulated solids, and dividing that depth by the total depth of the unit (the design liquid level), expressed as a percentage. In instances where an interceptor requires cleaning multiple times during the six (6) month review period, records shall be submitted for each cleanout. The owner or operator of the FSE shall cause the grease interceptor to be cleaned when FOG and solids reach 25% or less of the design liquid level of the grease interceptor. When multiple cleanouts are required during a review interval, the level of FOG and solids from each cleanout shall average less than 25%, and no single instance shall equal or exceed 35%.

(iv) Verification that the place of disposal of hauled grease is a facility designed for such a purpose and is licensed or certified in accordance with local, state, and federal regulations, as appropriate.

(v) Verification that the method of transporting hauled grease is appropriate for such a purpose and complies with local, state, and federal regulations, as appropriate.

(vi) Verification that any grease interceptor from which grease is removed is inspected and found to be in proper working order. This inspection shall include verification that the sanitary “tees” on the inlet and outlet sides of the grease interceptor are not obstructed, loose, or missing, verification that any baffles are secure and in place, verification that no cracks or defects in the tank are present, and verification that lids are securely and properly seated following completion of the cleaning. If any component of the grease interceptor is not in proper working order, records shall indicate what defect(s) exist and when, how, and by whom such defect(s) are remedied.

(b) Submission of a laboratory test to determine the oil and grease content of typical wastewater discharge. Such tests shall be conducted by a laboratory certified by the state of Iowa to test oil and grease under the procedures specified in Chapter 567.83 of the Iowa Administrative Code. Laboratory tests shall conform to the following conditions:

(i) The sample shall be obtained by use of a “grab sampling” method, in which the sample flask is held under a free-flowing outfall of water from a sampling port designed for such uses.

(ii) Staff of the Water Pollution Control Department shall select the date and time during which a sample may be obtained, the timing of which shall be selected to coincide with a peak customer demand.

(iii) The sample shall not exceed 300 mg/L oil and grease.

(c) Submission of a written logbook that details the grease control activities in the FSE. Such records shall be spot-checked for compliance by the Water and Pollution Control Department staff. The logbook shall at all times be kept and maintained on a day-to-day basis, and records shall be kept secure at the premises of the FSE for a continuous period of at least three years. The logbook shall record the following activities:



(i) Each cleaning of the FSE's grease interceptor(s), including the date of cleaning, quantity of grease removed, method by which removed grease is disposed, the operating condition of the grease interceptor, and any repairs to the grease interceptor or associated plumbing.

(ii) Training held for the FSE's staff regarding practices that will reduce the introduction of FOG into the sanitary sewer.

(iii) Self-inspection for presence and proper use of drain screens, clean and grease-free nature of exhaust hood equipment, and presence of spill clean-up kits, warning signage over sinks regarding FOG practices, and informational posters regarding FOG.

(iv) Introduction of any additive or emulsifier designed for the purpose of treating Fats, Oils, and Grease and reducing its accumulation in grease interceptor equipment or the POTW. The FSE shall verify before use that any additive or emulsifier to be used has been approved by the Director of Water and Pollution Control.

(v) Any other activities undertaken by the FSE's staff to prevent or mitigate the introduction of FOG into the Treatment Works or into the environment.

(5) The Director of Water and Pollution Control may, upon finding evidence of accumulated FOG in the Treatment Works, authorize an inspection of any FSE that may reasonably be believed to have introduced that accumulation of FOG. Such inspection may occur at any reasonable time and without prior notification. Inspections shall be limited to the equipment and practices related to the introduction of FOG and waste water into the Treatment Works. The FSE shall allow the individual performing this inspection, bearing proper credentials and identification, to enter upon or into the building, facility, or property housing the FSE for the purpose of inspection, observation, measurement, sampling, testing, or record review. Upon request of the individual performing the inspection, the FSE shall open any grease interceptor for the purpose of confirming that maintenance frequency is appropriate, that all necessary parts of the installation are in place, and that all grease interceptors and related equipment and piping are maintained in efficient operating condition. Inspections may be undertaken as many times as necessary to identify the source of FOG entering the Treatment Works.

**Section Two.** The Municipal Code of the City of Ames, Iowa shall be and the same is hereby amended by enacting a new Appendix N, Chapter 28, Utilities as follows:

## **APPENDIX N**

### **CHAPTER 28, UTILITIES**

All sections of this chapter carry the standard penalty, except the following:

#### **Sec. 28.306(1) AND 28.306(3) THROUGH 28.306(11). WASTE DISPOSAL.**

Up to \$1,000.00 for the 1st and each subsequent offense.

#### **Sec. 28.306(2). WASTE DISPOSAL**

Up to \$1,000.00, in addition to the actual cost of cleanup for any sanitary sewer overflow caused by an introduction of substances as described in Sec. 28.306, for the 1st and each subsequent offense. In the event that more than one utility customer is responsible for the overflow, the municipal infraction may be levied upon each customer, and the cost of cleanup shall be prorated among those responsible.

**Section Three.** The Municipal Code of the City of Ames, Iowa shall be and the same is hereby amended by enacting a new Appendix Q, High-Strength Surcharge Rates and Restaurant Surcharge as follows:

**High-Strength Surcharge Rates**

| <u>Parameter</u>       | <u>Surcharge Rate</u> |
|------------------------|-----------------------|
| Oxygen Demand          |                       |
| CBOD <sub>5</sub>      | \$0.41/lb.            |
| COD                    | \$0.15/lb.            |
| Nitrogen               |                       |
| NH <sub>3</sub> -N     | \$1.44/lb.            |
| TKN                    | \$0.93/lb.            |
| Solids                 |                       |
| TSS                    | \$0.60/lb.            |
| Fats, Oils, and Grease |                       |
| Oil and Grease         | \$0.00/lb.            |

**Restaurant Surcharge**

Restaurant surcharge on sewer use for customers operating Food Service Establishments \$0.00/100 cubic ft.”

**Section Four.** Violation of the provisions of this ordinance shall constitute a municipal infraction punishable as set out by law.

**Section Five.** All ordinances, or parts of ordinances, in conflict herewith are hereby repealed to the extent of such conflict, if any.

**Section Six.** This ordinance shall be in full force and effect from and after its passage and publication as required by law.

Passed this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
Diane R. Voss, City Clerk

\_\_\_\_\_  
Ann H. Campbell, Mayor