

**COUNCIL ACTION FORM**

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

**BACKGROUND:**

Fats, Oils, and Grease (FOG) is a wastewater pollutant that contributes to sewer blockages that can lead to environmental and health concerns and cause economic losses. Although FOG can be introduced into wastewater from a variety of sources, food service establishments (FSEs) can be major contributors. The City's Plumbing Code has requirements for installation of grease interceptors 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.

In November 2014, City Council adopted an ordinance implementing a FOG Control Program. Among other elements, the FOG Control Program included a Restaurant Surcharge rate that would be added to the regular sewer use rate for any FSE that did not meet the requirements of the Program. The implementation timeline included two, six-month compliance periods where the Restaurant Surcharge Rate was not enforced. This was to allow restaurants a grace period to learn about the requirements of the program and to make any necessary changes to their management practices to become compliant.

In the time since the ordinance was adopted, City staff has launched the program which is now in the second compliance period. Information about the program has been communicated through mailings and also in public information sessions held on December 17 and 18, 2015. Forty five individuals were in attendance at those meetings representing multiple FSEs.

Feedback from FSE's about the program has been encouraged throughout the process to give City staff a better understanding of how FSEs are adjusting to the program. FSEs, along with waste haulers and other City departments, have provided valuable feedback which has been used to shape the proposed revisions to the FOG Control Program.

City staff has prepared the attached ordinance containing revisions to the FOG Control Program. The proposed revisions include the following key elements.

1. Removal of Food Processing Plants and Retail Food Establishments from the program. Practices occurring at these sites have been reviewed by City staff

and it has been determined that they are not the target of the program. **This change eliminated approximately 30 FSEs from the program.**

2. Defining the process required for an FSE to gain approval to use an additive as a method of FOG control. Also defined are the specific types of additives that will not be approved for use. These types of additives are designed to disperse the accumulated FOG and would work against the goals of the program. **This change would help relieve some confusion as to which types of additives were permissible.**
3. Delineating the difference between a gravity-flow grease interceptor and a hydromechanical grease interceptor. These devices vary in size with the hydromechanical grease interceptor being much smaller. Highlighting the difference provides the opportunity to **allow FSEs to clean out their own hydromechanical grease interceptors** while still requiring that gravity-flow grease interceptors be cleaned by a party that specializes in that line of work.
4. Setting of the Restaurant Surcharge rate at \$2.54/100 cubic feet for non-compliance with the FOG Control Program. Data was collected from thirty three FSEs on the program to help determine the rate. The data collected included the following.
  - a. Intervals at which the FSE had its grease interceptor cleaned and the percentage full the grease interceptor was at each cleaning.
  - b. Cost to clean the FSE's grease interceptor.
  - c. The FSE's average monthly sewer usage.

Using the cleaning data allowed staff to determine the minimum frequency (cleanings per month) at which an FSE would need to clean its grease interceptor in order to be compliant with the program. Multiplying this frequency by the cost to have the grease interceptor cleaned provided an estimated monthly cost for the FSE for the proper maintenance of their equipment.

The estimated monthly cost was then divided by the average monthly sewer usage to give a surcharge rate for that FSE. **The proposed Restaurant Surcharge rate was the median rate obtained from the data.**

5. Addition of a Restaurant Fee set at \$75.00/month to be used in lieu of the Restaurant Surcharge for FSEs that are not billed for sewer usage or whose sewer usage is not representative of their food service activities. A number of FSEs on the program are not billed for sewer usage due to the way the utilities were setup for their location (for example, an independent coffee shop inside a grocery or retail store). In addition, there are facilities on the program which are billed for high volumes of sewer usage with only a small portion of that usage being related to food service (such as hotels that use large

volumes of water for laundry or guest showers with only a small percentage used for a breakfast buffet). These facilities would be subject to the Restaurant Fee only if they are not compliant with the program. The fee was determined by using the Restaurant Surcharge rate from above and multiplying that by the median monthly sewer usage for FSEs on the program. Staff believes this is the most equitable way to address these types of unique establishments without imposing significant re-plumbing costs to the FSE.

The final compliance grace period established in the original ordinance is set to expire on June 30, 2016. All FSEs who are in compliance with the FOG Control Program during the second half of 2016 will be exempt from paying the Restaurant Surcharge or Restaurant Fee. Any who are not in compliance will see the Restaurant Surcharge appear on their utility bill for meter readings beginning on January of 2017. Every six months their compliance status will be re-evaluated, and FSEs could potentially move on or off of the surcharge rate.

#### **ALTERNATIVES:**

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

#### **MANAGER'S RECOMMENDED ACTION:**

An effective Fats, Oils and Grease (FOG) 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. **City staff has worked extensively with local food service establishments (FSEs) and waste haulers to receive feedback, suggestions, and data. These responses are the basis for the proposed FOG Control Program revisions. The proposed revisions will remove unnecessary sites from the program and make it easier for FSEs to comply with the program. Also, setting the proposed rate/fee for non-compliance will help achieve the goal of reducing FOG discharge to the sanitary sewer.** Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1 as described above.

**ORDINANCE NO.**

**AN ORDINANCE TO AMEND THE MUNICIPAL CODE OF THE CITY OF AMES, IOWA, BY REPEALING SECTIONS 28.302(5),(18),(19), (20), 28.304(1), 28.304(8)(D), (11), 28.306 (11), 28.308 , APPENDIX Q, HIGH-STRENGTH SURCHARGE RATES AND RESTAURANT SURCHARGE AND ENACTING A NEW SECTIONS 28.302(5),(18),(19), (20), 28.304(1), 28.304(8)(D), (11), 28.306 (11), 28.308, APPENDIX Q, HIGH-STRENGTH SURCHARGE RATES AND RESTAURANT SURCHARGE THEREOF, FOR THE PURPOSE OF FATS, OILS AND GREASE REVISIONS; 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 repealing Sections 28.302(5),(18),(19), (20), 28.304(1), 28.304(8)(D), (11), 28.306 (11), 28.308 and 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 a food establishment required to hold a Food Service Establishment License or Mobile Food Unit License from the Iowa Department of Inspections and Appeals. FSE shall not mean an establishment which is only required to hold a Food Processing Plant License or Retail Food Establishment License from the Iowa Department of Inspections and Appeals.

(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 gravity-flow grease interceptor located underground or a hydromechanical grease interceptor 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, Restaurant Fee, or High-Strength Surcharge Rate, in addition to the normal user charge, shall be collected. The Restaurant Surcharge, Restaurant Fee, and High-Strength Surcharge Rate shall be listed in Appendix Q.

(a) Users which are billed for sewer usage shall be assessed the Restaurant Surcharge.

(b) Users which are not billed for sewer usage or whose sewer usage is not representative of the facilities food service activities shall be assessed the Restaurant Fee.

(c) Users whose sanitary sewer discharge flows through an outfall monitored by the City of Ames Non-Domestic Waste Pretreatment Program shall 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, and all other food service 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 or Mobile Food Unit 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 use of any additive into a grease interceptor, grease trap, or other on-premise plumbing for the purpose of "treating" FOG shall be prohibited unless prior approval is granted by the Director of Water and Pollution Control.

(a) FSE's who wish to use any additives must submit a request in writing. Each site wishing to use a product must obtain separate approval. Approval is not granted to use any product unless and until written approval is granted by the City.

(b) A Safety Data Sheet (SDS) must be submitted to the Director for approval of the product. The SDS, or other information submitted, must identify all active and inactive ingredients of the products. Materials that include "confidential" or "proprietary" components will not be approved.

(c) To be approved, products must be composed of non-emulsifying active biological additives designed to decompose the grease in the grease trap or grease interceptor.

(i) Products that serve to simply "disperse" FOG, or that act by allowing FOG to be more easily discharged from FOG control devices will not be approved.

(ii) Examples of products that are not approved are those that include, but are not limited to, the following types of components:

(a) Enzymes

(b) Solvents

(c) Surfactants

(d) Dispersants

(e) Other products that act on grease "chemically" as opposed to "biologically"

(f) Other components that are deemed to be otherwise incompatible with the purpose of the FOG control program or the municipal sewerage system as described in Section 28.306.

(d) Approval of a product may be revoked by the Director if pass-through of FOG or other problems in the collection system of treatment plant occurs.

(e) Aeration, agitation, or stirring of grease traps or grease interceptors shall not occur at any time.

(f) Approval of any additive shall not be construed as approval to modify any plumbing. Any changes or modifications necessary shall be conditioned upon receipt of a plumbing permit from the City.

(g) Approval of any additive shall not be construed as an endorsement by the City of the effectiveness of the product. The FSE assumes all responsibility for the performance and effectiveness of the product.

(h) Servicing frequencies for grease control equipment must still comply with the other requirements of this ordinance.

(i) Should the make-up or composition of any approved product change, a new approval must be granted by the Director.

(5) The Director of Water and Pollution Control, or designee, may exempt an FSE from the Restaurant Surcharge/Restaurant Fee 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 of grease interceptor cleanings occurring in the previous six (6) months. If a grease interceptor is not cleaned during the previous six (6) months, the reason(s) for this must be submitted to and approved by the Director of Water and Pollution Control or designee. 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.

(a) 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. The measurements shall be taken in the compartment nearest the inlet of a multi-compartment grease interceptor and in the first interceptor when more than one interceptor is installed in series. 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 require 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 period, the level of FOG and solids from each cleanout shall average 25% or less and no single instance shall equal or exceed 35%.

(b) In the case of a hydromechanical 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. The measurements shall be taken in the compartment nearest the inlet of a multi-compartment grease interceptor. 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 require 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 period, the level of FOG and solids from each cleanout shall average 25% or less and no single instance shall equal or exceed 35%. In situations where a hydromechanical grease interceptor is not able to be measured prior to cleanout, it shall be required that the interceptor be cleaned on a monthly basis.

(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 kitchen Best Management Practices records that detail the grease control activities in the FSE. Such records shall be spot-checked for compliance by the Water and Pollution Control Department staff. The records 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 records shall document the following activities:

(i) Each cleaning of the FSE’s grease interceptor(s). The FSE shall be required to meet the same requirements as are defined in Sec. 28.308(5)(a).

(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) Records of the date, time, quantity, and location of introduction of any additive. A copy of the approval granted by the Water and Pollution Control Department shall be kept with the logbook.

(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.

(6) (a) Cleaning of a hydromechanical grease interceptor may be performed by food service establishment staff. Documentation of any cleaning must include all information required for compliance with the FOG Control Program.

(b) Cleaning of a gravity-flow grease interceptor must be performed by a contractor that specializes in the disposal of restaurant grease.

(7) 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 repealing Appendix Q, High-Strength Surcharge Rates and Restaurant Surcharge and enacting a new Appendix Q, High-Strength Surcharge Rates and Restaurant Surcharge as follows:

### **High-Strength Surcharge Rates**

<b><u>Parameter</u></b>	<b><u>Surcharge Rate</u></b>
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	\$0.84/lb.

**Restaurant Surcharge**

Restaurant surcharge on sewer use for customers operating Food Service Establishments

\$2.54/100 cubic ft.

**Restaurant Fee**

Restaurant fee for sewer use for customers operating Food Service Establishment which are not billed for sewer usage or whose sewer usage is not representative of the facilities food service activities.

\$75.00/month.”

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

Section Four. 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

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Ann H. Campbell, Mayor