

ORDINANCE NO. 8-2013

AN ORDINANCE TO UPDATE THE CITY OF SHELBY CODE OF ORDINANCES
ARTICLE VIII FATS, OILS AND GREASE CONTROL

WHEREAS, in accordance with applicable provisions of 15A NCAC 2H .0900 and 40 CFR 403, as amended, the City Staff has updated the City of Shelby Code of Ordinances Article IV Sewer Service; and,

WHEREAS, the City of Shelby Wastewater Collection System Permit Number WQCS00037 requires the permittee to develop and implement an educational and enforceable fats, oils and grease program as found in Section I. Performance Standards, Item 4; and,


WHEREAS, City Council now desires to proceed with the recommended updates for Article VIII Fats, Oils and Grease Control Ordinance based on the recommendations from staff to utilize for the protection and use of all sanitary sewer customers of the City of Shelby.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SHELBY, NORTH CAROLINA:


Section 1. The updated sections of the City of Shelby Code or Ordinances entitled "Article VIII Fats, Oils and Grease Control" are hereby adopted as Exhibit A to this Ordinance.

Section 2. This Ordinance shall become effective upon its adoption and approval.

Adopted and approved this the 6th day of May 2013.


O. Stanhope Anthony III
Mayor

ATTEST:


Bernadette A. Parduski, NCCMC, MMC
City Clerk

APPROVED AS TO FORM:


Robert W. Yelton
City Attorney



Article VIII FATS, OILS AND GREASE CONTROL

SECTION 44-400 Scope and Purpose

It is the duty and responsibility of the City of Shelby to prevent the excessive introduction of grease into the sewer system and the wastewater treatment plant. This Ordinance is designed to outline, implement and enforce oil and grease discharge rules.

The intent of this Ordinance is to ensure compliance with the City of Shelby Sewer Use Ordinance; the rules and regulations of the United States Environmental Protection Agency and the State of North Carolina Department of Environment and Natural Resources as it relates to Fats, Oils and Grease (FOG); ensure compliance with City of Shelby Wastewater Collection System Permit Number WQCS00037; and to protect the City's infrastructure as it relates to the sanitary sewer collection and treatment system.

The accumulation of grease within the sewer lines causes sewer blockages, which cause sanitary sewer overflows that degrade the quality of local surface waters and the environment. Blockages may also cause sewer to back-up into business establishments, or homes and can cause extensive damage. Grease can be discharged to the sewer system from several sources hence the City of Shelby requires that all Food Service Establishments (FSE) and other sewer Users that may discharge excessive FOG shall have, operate and maintain, at their expense, approved grease interceptors or traps.

SECTION 44-401 Definitions

- (a) *City* – Refers to the City of Shelby.
- (b) *Cost Recovery* – Costs associated with the cleanup and/or decontamination of a site after discharge of substances into the sanitary sewer, storm sewer and/or to the environment that caused interference, pass-through or a sanitary sewer blockage. This includes clean up and decontamination of all structures/areas including residential, commercial, surface waters and the environment.
- (c) *Fats, Oils and Greases* – “FOG”- Organic polar compounds derived from animal and/or plant sources that contain multiple carbon chain triglyceride molecules. These substances may solidify or become viscous at temperatures between thirty-two (32) degrees Fahrenheit and one hundred fifty (150) degrees Fahrenheit (0 degrees-65 degrees Celsius). Commonly these substances are byproducts generated by the practice of cooking or preparing food. They are also found in such food substances as salad dressings, sauces and marinades, and baking oils and butter products. These substances are also referred to herein as “Grease” or “Greases” or “FOG”.
- (d) *Food Service Establishments* – “FSE” - Any commercial facility engaged in the activities of preparing, serving or otherwise making available for consumptions and being permitted as Food Service Facility through the local Environmental Health Program of the County Health Department and being classified by the County/State as a Food Service Establishments with codes 01, 02, 05, 06, 11, 12, 16, 30, 40, 41, 42, 45 or any other facility deemed by the City as needing a grease retention unit.
- (e) *Grease Interceptor* – Interceptors are grease retention units of the outdoor or underground type and normally consist of a 1,000-gallon capacity or more.
- (f) *Grease Retention Unit* – A device utilized to separate the grease and oils in wastewater effluent from a User prior to the wastewater entering the sanitary sewer collection and treatment system.
- (g) *Grease Trap* – A grease trap is normally 100 gallons or smaller and can be located either outside or indoors. Some older existing traps may be an under the sink or above-floor design.
- (h) *Owner* – Shall mean individual person, firm, company, association, society, corporation or group upon whose property the building or structure is located or will be constructed.
- (i) *Physical Property Restrictions* - shall mean a physical condition of a parcel of real estate that will prevent the installation of an exterior unit or which causes the potential installation an exterior grease interceptor to be cost prohibitive. Physical property restriction shall not include restrictions arising from a new building Owner's decision not to provide a stub-out for grease installation before a Food Service Establishment occupies the premises
- (j) *Plumbing Code* – The current edition of the State of North Carolina Plumbing Code.

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- (k) *Point-of-Use Grease Interceptor/Trap* – Shall mean a device placed under or in close proximity to sinks or other fixtures, which is typically less than 100-gallon capacity, likely to discharge grease in an attempt to separate, intercept, or hold grease waste to prevent its entry to the POTW.
- (l) *Publicly Owned Treatment Works -- "POTW" or Municipal Wastewater System*. A treatment works as defined by section 212 of the Act, (33 U.S.C. §1292) which is owned in this instance by the City. This definition includes any devices or systems used in the collection, storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes, and other conveyances only if they convey wastewater to the POTW treatment plant. For the purposes of this ordinance, "POTW" shall also include any sewers that convey wastewaters to the POTW from persons outside the City who are, by contract or agreement with the City, or in any other way, Users of the POTW of the City.
- (m) *Septage/Grease Management Firm* – A State of North Carolina certified firm engaged in the business of pumping, transporting, storing, treating or disposing of septage or grease.
- (n) *User* – Any person, including those located outside the jurisdictional limits of the City, who contributes, causes or permits the contribution or discharge of wastewater into the City of Shelby sewer system, including persons who contribute such wastewater from mobile sources, such as those who discharge hauled wastewater.

SECTION 44-402 Applicability

- (a) Authority: City of Shelby Sewer Use Ordinance, Section 44-131 (b) (2) & (14)
- (b) Authority: State of North Carolina Plumbing Code
- (c) The FOG Ordinance shall apply to any User that may be connected directly or indirectly to the City of Shelby sanitary sewer system.

SECTION 44-403 Grease Retention Unit Construction Standards

- (a) General Requirements:
 - (1) Exterior, in-ground grease interceptors are the preferred device for grease retention.
 - (2) Grease interceptors shall be a minimum of 1000 gallons.
 - (3) FSE and other sewer Users required to have grease retention units must obtain approval for any changes in design, operation or modification to all new or existing grease interceptors/traps. Minimum Construction requirements for grease interceptors are outlined in the City's Engineering Standard Details.
 - (4) More than one fixture can be plumbed in to a single grease interceptor; however, the grease interceptor size shall be equal to the total fixture capacity for all fixtures which the interceptor serves. Flow control fittings must be provided to the inlet side of all point-of-use if required by the manufacturer. The inlet temperature of the grease interceptor shall be 140 degrees Fahrenheit or less. Dishwashers shall not be plumbed into a point-of-use interceptor.
 - (5) Grease retention units shall be installed by Users in new and existing facilities as required by the City. These units shall be installed and maintained at the User's expense.
 - (6) No new establishments will be allowed to initiate operations until grease retention units are installed, inspected and approved by the City.
 - (7) All grease interceptors and traps shall be installed by a licensed North Carolina Plumbing Contractor and installed in accordance with the manufacturer's instructions. Grease interceptors and traps shall be installed in such a way as to be readily accessible at all times for inspection, sampling and/or maintenance.
 - (8) All new buildings or strip centers containing sections designated for commercial enterprise of the strip center shall be designed to provide a stub-out for a separate waste line for future grease interceptor installation. The Owner of a new strip center shall provide suitable physical property space and sewer gradient that is conducive for the installation of an exterior, in-ground grease

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interceptor(s) for any flex space contained within the strip center. Physical property restrictions and sewer gradient shall not be a defense for failure to install an exterior, in-ground grease interceptor.

- (9) Under certain circumstances, the grease retention unit size and location may necessitate special exceptions to this ordinance. For cases in which exterior type grease interceptors are infeasible to install due to physical property restrictions, a grease trap must be installed sufficient to properly treat the wastewater from all fixtures that have the potential to discharge wastewater that contains FOG. With any variance, User must submit appropriate plans for any additions or renovations and demonstrate that the proposed units (size and location) will meet the intent of this ordinance. Approvals/variances must be granted by the City prior to installation.
- (10) Food grinder usage is strongly discouraged. An additional 30 percent of wetted volume shall be added to any adequately sized grease separation device where food grinder waste will be introduced.
- (11) Drainage systems conveying sanitary waste (toilets, lavatories, etc.) shall not be connected to the influent side of the grease retention unit.
- (b) Grease Interceptor Sizing Criteria:
The City of Shelby has approved the Manning Formula to determine the size of an exterior, in-ground grease interceptor. Calculated volumes shall be rounded up to nearest tank size available.
Manning Formula=Gallons of Interceptor= [(A x B) + C] x D

A = GPM/fixtures (drain outlets)-takes into account the roughness of the pipe and pipe diameter size to calculate the drainage rate of various pipe diameter sizes.

Inch pipe diameter	GPM
0.5	0.8
1.0	5
1.5	15
2.0	33
2.5	59
3.0	93

B = Fixture Ratings of Grease Laden Waste Streams – fixtures that have more grease in their waste stream received higher values while less grease corresponds to a lower value.

Table of common commercial kitchen fixtures	
Fixture	Value
2, 3, or 4 compartment pot sink	1.00
1 or 2 compartment meat prep sink	0.75
Pre-rinse Sink	0.50
1 or 2 compartment vegetable prep sink	0.25
Floor Drain	0.10

C = Direct Flow from Dishwasher, Can wash or Mop Sink (GPM) –
Dishwasher = 10 GPM and can wash / mop sink = 6 GPM

D = 24 minute retention time

- (c) Grease Trap Sizing Criteria:
The City of Shelby has approved the NC Plumbing Code to determine the size of an interior grease trap.
- (d) Sub-standard grease retention units:
(1) In the event that a FSE or other sewer User's existing grease retention units are either under designed or sub-standard in accordance with this Ordinance, the Owner(s) will be notified in writing of the deficiencies and required improvements, and shall be given a compliance deadline not to exceed six (6) months to conform with the requirements of this standard. An exterior in-ground interceptor will be required and shall follow the requirements of this Ordinance.

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- (2) Substandard FSE's in operation prior to the adoption of this ordinance (April 2013) will have a period of three years to come into compliance with this ordinance after its initial adoption. If changes of use or remodeling of the FSE occur within the time period given, the User will be required to submit plans and shall install adequate devices that meet the requirements of this ordinance.
- (3) For cases in which exterior type grease interceptors are infeasible to install due to physical property restrictions, a point-of-use grease trap shall comply with sizing criteria as outlined. More than one fixture can be plumbed into a single grease interceptor however; the grease interceptor size shall be equal to the total fixture capacity for all fixtures which the interceptor serves. Flow control fittings must be provided to the inlet side of all point of use if required by the manufacturer. Dishwashers shall not be plumbed into a point of use grease interceptor.
- (4) The City must approve control devices and grease interceptor design prior to installation.

SECTION 44-404 Maintenance, Record Keeping and Grease Removal

- (a) General Cleaning Guidelines
 - (1) Grease traps and grease interceptors shall be maintained at the Owner's expense and in efficient operating condition at all times.
 - (2) All grease trap/interceptor waste shall be properly disposed of at a facility in accordance with federal, state or local regulations by a Septage/Grease Management Firm.
 - (3) The use of enzymes, grease solvents, thermal sources, emulsifiers, etc. are not considered acceptable grease trap/interceptor maintenance practices and shall not be used as an alternative to the pumping of a grease retention unit, nor as the sole source of grease retention unit maintenance.
 - (4) Improper activities that are harmful to the sewer system and will trigger enforcement action include the following:
 - i. Hot water running continuously through a grease retention unit.
 - ii. Separation, decanting or back flushing of the grease retention unit or its wastes
 - iii. Any discharge of grease retention unit to the sanitary sewer or wastewater treatment facility.
- (b) Pumping/Cleaning Frequency
 - (1) Grease interceptors shall be pumped and cleaned:
 - i. At least once every 90 days, or more frequently when directed by the City, or
 - ii. Anytime floatable grease layer exceeds 6 inches in depth, or
 - iii. Anytime the settleable solids layer exceeds 8 inches in depth, or
 - iv. Anytime the total volume of captured grease and solid material displaces more than 25 percent of the total volume of the interceptor, and
 - v. Anytime the interceptor is not retaining/capturing FOG
 - (2) Grease trap shall be pumped and cleaned:
 - i. At least every 30 days or more frequently when directed by the City of Shelby and
 - ii. Anytime the total volume of captured grease and solid material displaces more than 25 percent of the total volume of the trap
- (c) Cleaning/Maintenance Recordkeeping
 - (1) All Owners/Users shall maintain cleaning/pumping records that include:
 - i. Establishment name and physical location
 - ii. Date and time grease trap/interceptor cleaned
 - iii. Name of grease interceptor/trap service provider
 - iv. Established service frequency
 - v. Quantity of grease/materials removed
 - vi. Final disposal information
 - vii. Cleaning company/qualified agent information
 - viii. Signature and date of establishment personnel confirming service completion.
 - (2) Cleaning records shall be maintained on-site for a period of three (3) years.

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- (3) The Owner/User shall submit copies of grease trap cleaning to the City of Shelby Pretreatment Coordinator within 10 working days after cleaning. The submittal shall be mailed to:

**City of Shelby Utilities
Attn: Pretreatment Coordinator
PO Box 207
Shelby, NC 28151-0207**

SECTION 44-405 Right of Entry

- (a) City representatives, upon presentation of proper credentials shall have right-of-entry on or upon the property of any User/Owner or commercial or institutional enterprise subject to this Ordinance for the purpose of inspection, determination of compliance, or other enforcement action. The FOG Coordinator or their designee shall be provided ready access to all parts of the premises for the purposes of inspection, monitoring, sampling, ability to establish limits, inventory, records examination and copying, and the performance of any other duties which the City reasonably deems necessary to determine compliance with this Ordinance.
- (b) Where security measures are in place which require proper identification and clearance before entry into the premises, the property Owner or commercial enterprise shall make necessary arrangements with its security guards so that, upon presentation of proper credentials, the City representatives will be permitted to enter without delay for the purposes of inspecting the site and investigating any complaints or alleged violations of this Ordinance.
- (c) The City shall have the right to set up on the property such devices as are necessary to conduct sampling and/or metering of the User's operations.
- (d) All grease retention units shall be easily accessible and shall not be obstructed by landscaping, parked cars, or other obstructions. Any temporary or permanent obstruction to safe and easy access to the areas to be inspected and/or monitored shall be removed promptly by the responsible party at the written or verbal request of the City. The costs of clearing such access shall be responsibility of the User/owner.
- (e) Unreasonable delays in allowing a City representative access to the User's facility shall be a violation of this Ordinance.

SECTION 44-406 Prohibitions and Violations

- (a) Prohibitions
No User shall for the purpose of allowing grease to pass through a collection unit contribute or cause to be contributed into the sanitary sewer system the following:
 - (1) Any waters or wastes which may contain fat, oil, grease, or wax, whether emulsified or not, at a total concentration of more than two hundred (200) milligrams per liter or in a concentration or amount otherwise determined by the City to be excessive, or
 - (2) Hot water running continuously through a grease retention unit, or
 - (3) Discharge of concentrated alkaline or acidic solutions into a grease retention unit, or
 - (4) Discharge of concentrated detergents into a grease retention unit, or
 - (5) Discharge of oils and grease into the sanitary sewer system.
- (b) Violations
It shall be a violation of this Ordinance and the City of Shelby Sewer Use Ordinance for any person or User to:
 - (1) Modify a grease retention unit structure without consent from the City, or
 - (2) Provide falsified data and/or information to the City of Shelby, including but not limited to grease retention unit maintenance and/or cleaning records, or
 - (3) Violate or fail to comply with any applicable section or provision of this Fats, Oils and Grease Control Ordinance.
- (c) Enforcement:

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- (1) Enforcement actions will be applied as per the City of Shelby Sewer Use Ordinance and the Pretreatment Enforcement Response Plan.
- (2) When an obstruction/sanitary sewer overflow occurs, the records of all FSEs or other Users that discharge FOG to the affected sanitary sewer line may be reviewed in order to determine the responsible party. Any User found to be in non-compliance with the required grease retention maintenance and service shall be deemed a responsible or contributing party for cost recovery purposes.

SECTION 44-407 FOG Program Fees

- (a) All Food Service Establishments, as defined by this Ordinance, that either directly/indirectly discharge to the City's sanitary sewer system will be assessed program fees as outlined within the Council approved rate schedules for each fiscal year. The program fees associated with the FSEs fall into three categories:
 - (1) Small User 0 to 10,000 gallons per month
 - (2) Medium User 10,001 to 50,000 gallons per month
 - (3) Large User 50,001 or more gallons per month

User fees shall be determined according to the computed annual monthly average of metered water usage by the food service establishment. The annual monthly average will be used to determine fee category and the fee will be billed monthly on the User's utility bill. New Users will be categorized as a similar FSE until the annual monthly average of metered water usage can be obtained.

SECTION 44-408 THROUGH 44-415 RESERVED