

CITY OF WILSON

Water Resources Division

Fats, Oils and Grease Control Ordinance



Adopted June 2007

City of Wilson FOG Control Ordinance

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Introduction

Fats, oils and grease (FOG) are problem substances in wastewater that can be controlled by properly maintained interceptors. Correct grease interceptor maintenance lowers the number of grease stoppages in the City of Wilson collection system.

FOGs are the leading cause of sanitary sewer overflows (SSO) in North Carolina. These overflows disrupt residential, commercial and industrial operations, and carry the potential for health risks which comes from contact with disease-causing organisms.

The city now requires that all food service establishments maintain a properly sized grease and oil interceptor to keep excess oil and grease out of the sanitary sewer system.

Preventing FOG from entering the sewer system not only reduces sewer line maintenance but also benefits the wastewater treatment plant. The plant's microbiological treatment processes more effectively remove pollutants when necessary to maximize the effectiveness of the FOG program.

The City's FOG program will be evaluated periodically and will be modified as necessary to maximize the effectiveness of the FOG program.

Definitions

Alternative Grease Removal Technology - means an automatically operated mechanical device specifically designed to remove grease from the waste stream.

Best Management Practices – any program, process, operating method or measure that controls, prevents, removes or reduces discharge of FOG.

City – means the City of Wilson, North Carolina

FOG – means fats, oils and grease which are groups of substances (triglyceride esters of fatty acids) with similar physical characteristics that are detectable quantitatively on the basis of their common solubility in an organic solvent, usually originating from animals or vegetables. All are sometimes referred to as “Grease” or “Greases”.

Food Service Establishment (FSE) – any facility discharging kitchen or food preparation wastewaters including restaurants, motels, hotels, cafeterias, hospitals, schools, bars, etc.

Grease Interceptor or Trap - a device designed to collect, contain, and remove food wastes and grease from the wastewater while allowing the remaining wastewater to be discharged to the City's wastewater collection system by gravity. They may be located underground and outside of a FSE or may be located inside and "under the counter".

Maintenance – means the complete removal of all grease interceptor contents including floatable materials, wastewater, sludge and solids. The interceptor must be thoroughly cleaned to remove grease and scum from inner walls and baffles.

Manager – means the City of Wilson's Manager of the Publicly Owned Treatment Works (POTW) his designee, or the person the Manager may designate to carry out the functions set forth in the FOG program.

Permit – written authorization to discharge to the City's wastewater collection system granted by the City to the owner of a FSE or his/her authorized agent. Permits are NON-TRANSFERRABLE. A new owner or operator of an existing FSE shall apply for and obtain a new permit.

User – means the owner or operator of a food service establishment that discharges wastewater into the City's sanitary sewer.

GENERAL REQUIREMENTS

In order to reduce sewer blockages, FSEs that discharge into the City's sanitary sewer system MUST install a properly sized grease interceptor. Grease interceptors shall be required at the User's expense, when such User operates food preparation or serving facilities. Grease interceptors may be required in other commercial or industrial applications when deemed necessary by the POTW Manager.

All fixtures, equipment and drain lines located in a facility's food preparation and clean up areas, which are sources of FOG, shall be connected to a grease interceptor. The following equipment and fixtures have been identified as potential sources of FOG and shall be connected to an in-ground grease interceptor: **pre-rinse and or pre-wash sinks or sinks in dishwashing areas; two or three compartment sinks; wok stoves; self-cleaning stove ventilation/exhaust hood; kitchen floor drains; floor drains; floor sinks; mop sinks; food prep sinks.**

Wastewater from sanitary facilities (bathrooms, sinks) shall not be introduced into any grease interceptor or trap.

The City requires that all drain lines have permanently fixed screens, with maximum ¼ inch openings, to prevent pass-through of larger solids into the grease interceptor and/or wastewater collection system.

New FSEs will not be allowed to initiate operations until a grease interceptor is approved and inspected by the City. Existing facilities must comply with these regulations by October 1995. There is no "grandfather clause".

Any facility with an existing grease interceptor that anticipates expanding food handling or preparation operations must receive approval from the POTW Manager or his/her designee.

Requirements for Best Management Practices [BMPs]

All FSEs shall develop and implement Best Management Practices [BMPs] to minimize the discharge of FOG to the sanitary sewer system. Controlling grease at its source is the best way to prevent blockages and backups that result from grease build-up. Appendix A is a *Fact Sheet for Best Management Practices* for commercial establishments prepared by the North Carolina Pretreatment Coordinators.

Grease Interceptor Design Guidelines

Detailed plans, showing the grease interceptor facilities and operating procedures, must be approved by the City of Wilson Plumbing Inspection department and /or the POTW Manager or his/her designee. The review and approval by the City shall in no way relieve the User from the responsibility of meeting effluent discharge limitations or properly maintaining the device.

Grease Interceptor (under the sink)

Under the sink interceptors may be allowed for existing facilities if the installation of a suitable outdoor grease interceptor is infeasible, a "hardship" is acknowledged, and a variance is approved by the POTW Manager or his/her designee.

An under the sink interceptor must be followed by an in-ground interceptor if the facility also has floor drains and/or dishwashers. An under the sink design may be unacceptable if the inspector anticipates high discharge flows.

Grease Interceptor (in-ground)

For new and existing facilities, outside, in-ground, grease interceptors are required, unless a variance is granted by the POTW Manager or his/her designee. The grease interceptor should be as close to the source as possible, and in a manner that is fully accessible for regular and safe maintenance, cleaning and sampling, without creating a nuisance.

Minimum design criteria for grease interceptors shall include:

- Minimum capacity of 1, 000 gallons; Maximum 1,500 gallons
- 9 inches of freeboard
- Inlet and outlet must have a T-pipe attached that extends a minimum of 18" down. There should be a clearance of at least 12" from the bottom of the T-pipe to the bottom of the interceptor (18" preferred).
- 2-inch inlet and outlet differential
- At least two compartments with an interior baffle wall extending to the bottom of the interceptor. The baffle wall should extend above the water line for the tank, but should allow for an air gap at the top. There must be an opening in the baffle wall approximately mid-way from the bottom to the water line. The opening must be a minimum of 18" from the bottom and at least 12" down from the water line.
- Outlet tee must be 6" wide for sampling reasons, unless a sampling vault is present.
- 24-inch minimum access openings over both compartments brought up to at least finished grade and protected from surface water runoff. Access covers shall be cast iron or equivalent.
- Design shall facilitate sampling of the interceptor's effluent, measurement of the grease layer and clean out pumping operations.
- Joints should be properly sealed using mastic, butyl rubber, or other pliable sealant that is waterproof, corrosion-resistant and approved for use in septic tanks.

In the case of strip malls, stub ups for future grease traps will have individual lines installed for individual grease traps. FSE's are no longer allowed to be combined to one interceptor.

A licensed North Carolina Plumbing Contractor shall install all grease interceptors in compliance with the latest edition of the Uniform Plumbing Code.

The City of Wilson Plumbing Inspector and the Pretreatment Coordinator must approve any variations from the above recommendations before installation.

If an interceptor is determined to need a volume greater than 1,500 gallons, then additional grease interceptors should be installed in series.

Alternative Grease Removal Technologies

If a FSE desires, because of documented space constraints, an outdoor, underground grease interceptor is not feasible, the request for an alternative location or alternative grease removal technology must be approved by the POTW Manager or his/ her designee. Any FSE using this technology shall operate the system in such a manner that attainment of the grease wastewater discharge limit, as measured from the unit's outlet, is consistently achieved.

Maintenance Requirements for Grease Interceptors

Grease interceptors must be cleaned as frequently as possible to maintain the grease wastewater discharge limit of 300 mg/L in the effluent, but cleaning intervals shall not exceed 30 days. Grease interceptors may require more frequent cleaning. Interceptors that accumulate a build-up of grease and solids which exceed the maximum average build up that is acceptable are also considered in violation.

The User is responsible for the proper removal and disposal of the grease interceptor waste. It is the Users' responsibility to ensure proper cleaning of grease control devices is being performed.

All FSEs shall maintain written records on site of grease interceptor maintenance. A copy of an approved maintenance form is provided in Appendix B. Maintenance records, which include pumping receipts, **must be kept for at least three years** and shall be provided upon request. Failure to provide maintenance records upon request shall be considered a violation.

FSEs which provide self maintenance of their grease control devices must adhere to all the requirements, procedures and detailed record keeping ensuring compliance with the FOG control program. A cooking oil collection log is provided in Appendix C.

Compliance with FOG Control Program

A grease interceptor shall be considered out of compliance if any of the following conditions exist:

- FOG concentrations are found to exceed 300 mg/L as measured by either method EPA 1664 A or EPA Method 413.
- Maximum average build up of FOG and solids exceeds 8 inches for interceptors < 800 gallons, 12 inches for 800-1,300 gallon interceptors, and 16 inches for interceptors > 1,300 gallons.
- Maintenance cleaning has not been accomplished every 30 days.
- Failure to submit records.
- Inspection hindrance
- Failure to maintain on-site records.
- Failure to maintain interceptors in proper working order.
- Source of sewer blockage
- Source of sanitary sewer overflow
- Falsification of records.

Prohibitions

The use of enzymes, chemical, or biological additives is not considered acceptable grease interceptor maintenance practice.

Disposal of fryer oil to the City sewer system or storm water system is specifically prohibited.

The practice of re-introducing waste and/or wastewater pumped from oil and grease interceptors back into the interceptor is strictly prohibited. Interceptors must be serviced and emptied of the waste content as required for their efficient operation.

Wastes removed from grease interceptors are prohibited from being discharged into the sanitary sewer.

Variations

Variations to the design and maintenance requirements contained herein may be requested. The User must submit sufficient documentation as required by the POTW Manager and/or his designee that explains the need to vary from design or maintenance requirements. The City will notify in writing of acceptance or denial of variance request. The City reserves the right to revoke the variance when deemed necessary.

Inspections

Grease interceptors shall be inspected a minimum of once per month. Users shall allow City personnel ready access at all reasonable times to all parts of the premises for the purpose of inspection, sampling, and records examination. The City shall have the right to set up on the User's property such devices as are necessary to conduct sampling, inspection, and compliance monitoring operations. Denial of the City's access to the User's property shall be deemed a violation.

Enforcement

If a grease interceptor fails an inspection, the inspector shall notify the User that maintenance must be performed on the interceptor within a specified time frame but no more than 7 calendar days. The inspector shall return to re-inspect to ensure compliance. If the interceptor fails re-inspection, a Notice of Violation shall be issued and maintenance shall be performed immediately.

Any grease interceptor which receives three (3) Notices of Violations within a 24 month period shall be deemed a nuisance by the POTW Manager and shall require corrective actions as determined by the POTW Manager to cure the nuisance, including, if deemed necessary termination of all discharges to the City of Wilson Water Reclamation Facility. The decision to terminate services would be made by the City of Wilson POTW Director.

If any User is determined to be the source, in whole or in part, of a sanitary sewer blockage and/or overflow, the User will be assessed a fine of not less than \$500.00, plus remediation costs for clean up, in addition to any fines dispensed from the State of North Carolina. The fines contained herein are not exclusive and the POTW Manager and/or his designee may use other methods to remedy the situation.

Any alternative technology grease removal device found in non-compliance, *upon first inspection*, shall receive a Notice of Violation.

Appendix A

Best Management Practices (BMP) Fact Sheet

Appendix B

City of Wilson Maintenance Form

Appendix C

Cooking Oil Collection Log

Appendix D

City of Wilson Storm Water Document

