

# Fats, Oils, and Grease (FOG)

## Regulations

City of Elizabeth City, NC



May 8, 2006

### Department of Public Works

410 Prichard Street  
Elizabeth City, NC 27909



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## 1. Introduction

- 1.1. Fats, oils, and grease (FOG) is a leading cause of sanitary sewer overflows (SSO) in North Carolina. Grease is a common term for animal fats and vegetable oils. Residential and commercial Users, who are often unaware that they are causing potential harm, introduce FOG from their cooking processes, into their plumbing system and City's sanitary sewer system. Over time FOG builds up and clogs pipes and plumbing. In the collection system, FOG leads to blockages, which can cause sewer overflows onto streets and property, and into homes and businesses. These overflows disrupt residential, commercial and industrial operations, and carry the potential for health risks which comes from contact with disease-causing organisms. Raw sewage can carry bacteria, viruses, parasitic organisms, etc. which may bring diseases from mild gastroenteritis (diarrhea) to life threatening ailments such as cholera, dysentery and hepatitis. They also increase sewer system maintenance costs and present potential impacts to our environment.

## 2. Definitions

- 2.1. **City** - City of Elizabeth City, North Carolina
- 2.2. **Director** - The City's Director of the Department of Public Utilities
- 2.3. **FOG** - material either liquid or solid, composed primarily of fat, oil, or grease from animal or vegetable sources. Examples of FOG include kitchen cooking grease, vegetable oil, bacon grease, etc.
- 2.4. **Food Handling Facilities** - Any commercial or institutional facility discharging kitchen or food preparation wastewaters including restaurants, motels, hotels, cafeterias, hospitals, schools, bars, churches, etc.
- 2.5. **Grease Interceptor** - A device, usually located underground and outside of a Food Handling Facility 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.
- 2.6. **Grease/Solids Depth** - The grease/solids depth consists of the combined depth of the grease cap at the top of the Grease Interceptor's liquid level and the solids deposition at the bottom of the Interceptor. *(Example: The grease cap at the top of the liquid measures six inches and the solids at the bottom measures eight inches for a combined accumulation of 14 inches. The Interceptor's liquid level is 48 inches. The grease/solids depth is 14 divided by 48 times 100 or 29% of the liquid depth.)*



- 2.7. **Grease Trap** - Indoor, “under the counter” units 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.
- 2.8. **Oil/Water Separator** - A device, designed to remove oil (e.g. petroleum-based products) from the waste stream while allowing the remaining wastewater to be discharged to the City’s wastewater collection system by gravity.
- 2.9. **User** - Any person, establishment, or facility that contributes, causes, or permits the contribution of FOG into the City’s sanitary sewer system.
- 2.10. **Variance** - A written document issued by the City’s Director of Public Utilities that modifies and/or changes requirements of this FOG Program for a specific User.

### 3. **FOG Reduction Best Management Practices**

- 3.1. The best way to reduce FOG in your plumbing and the City’s sanitary sewer system is to keep it from going down the drain in the first place. Household sinks (bathroom and kitchen) and toilets all discharge to the sanitary sewer system.
- 3.2. Some best management practices that residents can practice to reduce FOG generation include:
  - 3.2.1. Be careful of what you put down your drains or flush down your toilets!
  - 3.2.2. Scrape, or dry wipe, excess grease from frying pans, pots and dishes into containers (old milk cartoons, frozen juice containers, etc.) or a plastic garbage bag, and dispose of in the garbage. Cat litter or used coffee grounds can absorb the liquid in the container.
  - 3.2.3. Pour all cooking oils (including salad oils, frying oil/grease, bacon fat, marinades, etc.) into a container for ultimate disposal with the trash.
  - 3.2.4. Place leftover foods, meat trimmings, etc. in the trash can and not down the garbage disposal.
  - 3.2.5. Never dump motor oil or other lubricants down the drain. Take them to a collection station.
  - 3.2.6. Never use the toilet for disposal of kitchen wastes. Also, do not flush disposable diapers, paper towels and other bulky paper products down the toilet. These bulky items, combined with the grease build-up will stop the flow of wastewater through private plumbing and the sewer system.
- 3.3. Controlling grease at its source goes a long way toward eliminating 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. Special procedures may be required for specific applications.

#### **4. General Requirements**

- 4.1. In order to reduce sewer blockages, Food Handling Facilities that discharge into the City's sanitary sewer system must install a Grease Interceptor or Trap. 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 Director.
- 4.2. The Director reserves the right to make determinations of Grease Interceptor or Grease Trap adequacy, need, and effectiveness based on a review of all relevant information regarding Grease Interceptor/Trap performance, maintenance, and facility site/building review. To assure adequacy and effectiveness, the Director may require repairs, modifications or replacement of such Interceptors or Traps. The Director may request specific information impacting potential FOG production including menus, hours/days of operation, food preparation procedures, clean up practices, etc.
- 4.3. Automotive-related facilities that may contribute petroleum-based oil to the City's sanitary sewer collection system are required to install an EDA or DENR-approved Oil-Water Separator.
- 4.4. Wastewater from sanitary facilities shall not be introduced into any Grease Interceptor, Grease Trap or Oil/Water Separator.
- 4.5. New Food Handling Facilities 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 1, 2006.
- 4.6. Any facility with an existing Grease Interceptor or Trap that anticipates expanding food handling or preparation operations must receive approval from the Director.

#### **5. Authority**

- 5.1. The North Carolina Clean Water Act of 1999 required jurisdictions to obtain a permit from the Department of Environment and Natural Resources for the operation of wastewater collection systems.



- 5.2. In June 2002, the Division of Water Quality notified the City that revisions were required to the City's Sewer Use Ordinance to include regulated control for fats, oils and greases, sand and grit control, in order to comply with the City's permit (Permit No. WQCS00082). Revisions to the Ordinance were adopted by the City Council on September 9, 2002. City Council amended this Ordinance on May 8, 2006 and granted approval of these FOG Regulations.

## **6. Design Guidelines**

- 6.1. Detailed plans, showing the Grease Interceptor facilities and operating procedures, must be approved by the City's Building Inspector, in consultation with the Director prior to construction. 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.

### *6.2. Grease Interceptor Design*

Outside, in-ground, Grease Interceptors are required for all Food Handling Facilities, unless a Variance is granted by the Director. Grease Interceptors are typically pre-cast concrete units that are plumbed to receive only kitchen wastes (pot sinks, prep sinks, can wash, floor drains, dishwasher, and food grinder waste). The Grease Interceptor should be located 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.

- 6.3. A registered North Carolina Professional Engineer (PE) must affix his PE seal to all designs that encroach public right-of-way (not on private property).

- 6.4. Minimum design criteria for pre-manufactured Grease Interceptors shall include:

- 6.4.1. Minimum capacity of 1,000 gallons
- 6.4.2. 9 inches of freeboard above the normal liquid level to the top of the interceptor
- 6.4.3. 2-inch inlet and outlet differential
- 6.4.4. 3-inch minimum wall thickness and reinforced with 6-inch x 6-inch, #10 gauge welded wire
- 6.4.5. Minimum concrete compressive strength of 3,500 psi
- 6.4.6. Minimum 2:1 length/width ratio
- 6.4.7. At least two compartments with an interior baffle wall located two-thirds to three-quarters of the distance from the inlet end wall, vented at the top and with adequate flow through holes
- 6.4.8. Outlet tee constructed of PVC, PE or equivalent, minimum class 160 pipe extending 50 percent of liquid depth
- 6.4.9. 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

6.4.10. Design shall facilitate sampling of the interceptor's effluent, measurement of the grease layer, and clean out pumping operations

6.4.11. Watertight per vacuum or exfiltration test

6.4.12. Properly sealed joints to prevent infiltration or exfiltration

6.5. Minimum structural criteria shall include:

6.5.1. Minimum structural design at 150 lbs./ft<sup>2</sup> (non-vehicular traffic installations)

6.5.2. H-20 bridge load for vehicular traffic conditions

6.5.3. ACI Building Code 318 (reinforced concrete design)

6.5.4. ASTM C1227-93 Standards for Pre-cast Concrete Tanks

6.5.5. ASTM C890 Structural Design Load for Pre-cast Water and Wastewater Structures

6.6. *Grease Traps*

Indoor, point source Grease Traps incorporated into the kitchen plumbing may be allowed if the installation of a suitable outdoor Grease Interceptor is infeasible or unnecessary, a "hardship" is acknowledged, and the Director of Public Utilities approves a Variance (See Section "10. Variance"). Certain conditions may be imposed by the Director with the issuance of a Variance, such as an increased clean-out frequency, further study, etc.

6.7. A licensed North Carolina Plumbing Contractor shall install all Grease Interceptors and Grease Traps in compliance with the latest edition of the North Carolina State Plumbing Code and obtain a building permit from the City prior to installation.

6.8. *The User shall verify the minimum tankage required based on the anticipated flow rates and organic loads, using generally accepted methods of design such as Environmental Protection Agency, North Carolina Division of Environmental Health or Uniform Plumbing Code methods. **The User shall be solely responsible for the performance of the device and its ability to consistently reduce effluent FOG concentrations below 100 mg/l as measured by EPA Method 1664A.***

## 7. **Maintenance Practices/Records**

7.1. Grease Interceptors and Traps should be cleaned as frequently as necessary to maintain FOG concentrations below 100 mg/l in the effluent, but in no case shall cleaning intervals exceed 30 days. Grease Traps may require more frequent cleaning. Grease Interceptors with a combined grease/solids depth (see section "2.



Definitions”) of greater than 25% of the liquid depth are also considered in violation.

- 7.2. Haulers are required to use City-approved equipment that contains incremental depth markings on a plastic cylinder to measure the grease cap and solids deposition depths.
- 7.3. All waste removed from the Grease Interceptor or Trap must be disposed at a facility permitted by the North Carolina Division of Solid Waste Management to receive such waste. The User shall be responsible for the proper removal and lawful disposal of the Grease Interceptor/Trap waste.
- 7.4. The use of enzymes, chemical, or biological additives is not considered an acceptable Grease Interceptor/Trap maintenance practice.
- 7.5. All Food Handling Facilities that discharge into the City’s sanitary sewer system shall maintain written records, on site, of maintenance activities for grease removal devices. A copy of the Grease Removal Device Maintenance Form, “Maintenance Form”, contained in Appendix B, shall be completed and delivered, or mailed, to the City’s Department of Public Works on a monthly basis, or according to the frequency schedule stipulated in a City-issued Variance. The City is not responsible for documents that are not received at the address below. Completed Maintenance Forms are required for facilities that remove FOG using Grease Interceptors or Grease Traps and shall be submitted to:

**Department of Public Works  
410 Prichard Street  
Elizabeth City, NC 27909**

- 7.6. A Grease Removal Device Maintenance Log, “Maintenance Log” that summarizes maintenance activities is provided in Appendix D. This form shall be clearly posted in the kitchen at all times, and in plain view of kitchen workers, to illustrate maintenance activities and compliance with these regulations. The Maintenance Log shall summarize information contained on the Maintenance Form for Interceptor installations.
- 7.7. The Maintenance Log shall be updated every time a Grease Trap is cleaned out. Grease Trap maintenance typically involves removing the contents of the Grease Trap for interim disposal in an outdoor, on-site, grease storage barrel. The waste hauler then removes the contents of the grease storage barrel for ultimate disposal and completes the Maintenance Form, with appropriate signatures for the waster hauler and kitchen manager. The Maintenance Form is then submitted to the City at the frequency interval contained in the Variance.





- 7.8. Maintenance records must be kept by the User for at least three (3) years and shall be provided upon request from representatives of the City or the Albemarle Regional Health Services. Failure to provide maintenance records upon request shall be considered a violation.

## **8. Determination of Compliance with Maintenance Requirements**

- 8.1. A Grease Interceptor shall be considered out of compliance if any of the following conditions exist:
  - 8.1.1. FOG concentrations are found to exceed 100 mg/l as measured by EPA Method 1664A
  - 8.1.2. Maintenance cleaning has not been accomplished every 30 days, unless a Variance is granted
  - 8.1.3. The grease/solids depth exceeds 25% of the liquid depth
  - 8.1.4. Failure to submit records
  - 8.1.5. Inspection hindrance
  - 8.1.6. Failure to maintain on-site records
  - 8.1.7. Failure to maintain Interceptors or Traps in proper working order
  - 8.1.8. Source of sewer blockage
  - 8.1.9. Source of sanitary sewer overflow
  - 8.1.10. Falsification of records
- 8.2. Typically, Food Handling Facilities will be evaluated based on maintenance cleaning compliance and reported grease/solids depths. The City may perform random inspections to determine if grease/solids depth exceed 25% of the interceptor's liquid depth and/or collect samples for determination of effluent FOG concentrations.

## **9. Inspection and Sampling**

- 9.1. The City may conduct inspections of Food Handling Facilities connected to the sanitary sewer system, as the City deems necessary to ascertain whether the purpose and requirements of these FOG regulations are being met. Persons or occupants of premises where wastewater is created, discharged or suspected to be discharged, 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 Users 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. Unreasonable delays may be considered denial of access. A Grease Interceptor Inspection Form used by the City is contained in Appendix C.



## **10. Variance**

- 10.1. A Variance to the design and maintenance requirements contained herein may be requested when compliance creates an undue hardship or if a grease trap is sufficient. Hardships caused by space availability, minimal anticipated FOG production, cost, etc., may be grounds for a variance. The User must submit sufficient documentation, as required by the Director, which explains the need to vary from design or maintenance requirements. A minimum of four months of data should be submitted for maintenance cleaning frequency modifications or similar requests.
- 10.2. After review of the documentation, the City will notify the Food Handling Facility in writing of acceptance or denial of the Variance request. The City may also request further study pursuant to or, as a condition of the Variance. Certain conditions may be imposed by the Director for installations that have received a Variance.
- 10.3. If a Variance is granted and the User subsequently increases anticipated food service production or, the City later determines that the discharge adversely impacts the sanitary sewer collection system or treatment works, the Variance may be revoked.
- 10.4. A Variance application fee of \$300 will be paid to the City upon submission of the Variance request and prior to City review. Variance application fees may be waived at the discretion of the Director for follow up modifications of the same variant issue contained in the original application. *(For example, if a variance had been granted to allow maintenance cleaning every two months and, subsequently it can be shown that a three-month maintenance frequency is acceptable, then the fee may be waived.)*
- 10.5. The City will waive Variance application fees for existing facilities until October 1, 2006. After this date, existing facilities operating prior to October 1, 2006 will be required to submit the Variance application fee.

## **11. Enforcement**

- 11.1. If any residence or Food Handling Facility is determined to be the source, in whole or in part, of a sanitary sewer blockage and/or overflow, the residence or Facility will be assessed a fine of not less than \$500 and not more than \$10,000, 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 Director may use other methods to remedy the situation, such as the termination



of water and wastewater service, legal action, etc.

11.2. The following chart identifies fines for various annual infractions.

<b>Minor Violations</b>				
	<b>1<sup>st</sup> Offense</b>	<b>2nd Offense</b>	<b>3<sup>rd</sup> Offense</b>	<b>4<sup>th</sup> Offense &amp; Up</b>
Failure to submit records	Warning	\$100	\$150	Major Violation
Inspection hindrance	Warning	\$100	\$150	Major Violation
Failure to maintain on-site records	Warning	\$100	\$150	Major Violation
<b>Moderate Violations</b>				
	<b>1<sup>st</sup> Offense</b>	<b>2nd Offense</b>	<b>3<sup>rd</sup> Offense</b>	<b>4<sup>th</sup> Offense &amp; Up</b>
Failure to maintain interceptors in proper working order	\$150	\$300	\$500	\$1,000
Failure to clean out interceptor every 30 days	\$150	\$300	\$400	\$1,000
<b>Major Violations</b>				
Source of sewer blockage (minimum)	\$500			
Source of sanitary sewer overflow (minimum)	\$1,000			
Falsification of records	\$1,000			



## **Appendix A:**

# **Fact Sheet For Best Management Practices**

# A FACT SHEET FOR Best Management Practices for Fats, Oils, and Grease



*Residual fats, oils, and grease (FOG) are by-products that food service establishments must constantly manage. Typically, FOG enter a facility's plumbing system from ware washing, floor cleaning, and equipment sanitation. Sanitary sewer systems are neither designed nor equipped to handle the FOG that accumulates on the interior of the municipal sewer collection system pipes. Over 30% of North Carolina's 1999 sanitary sewer overflows were the result of pipe blockages from FOG accumulation from residential, institutional and commercial sources. The best way to manage FOG is to keep the material out of the plumbing systems. The following are suggestions for proper FOG management.*

## Dry Clean-Up

Practice dry cleanup. Remove food waste with "dry" methods such as scraping, wiping, or sweeping before using "wet" methods that use water. Wet methods typically wash the water and waste materials into the drains where it eventually collects on the interior walls of the drainage pipes. Do not pour grease, fats or oils from cooking down the drain and do not use the sinks to dispose of food scraps. Likewise it is important to educate kitchen staff not to remove drain screens as this may allow paper or plastic cups, straws, and other utensils to enter the plumbing system during clean up. The success of dry clean up is dependent upon the behavior of the employee and availability of the tools for removal of food waste before washing. To practice dry clean up:

- Use rubber scrapers to remove fats, oils and grease from cookware, utensils, chafing dishes, and serving ware.
- Use food grade paper to soak up oil and grease under fryer baskets.
- Use paper towels to wipe down work areas. Cloth towels will accumulate grease that will eventually end up in your drains from towel washing/rinsing.

## Spill Prevention

Preventing spills reduces the amounts of waste on food preparation and serving areas that will require clean up. A dry workplace is safer for employees in avoiding slip, trips, and falls. For spill prevention:

- Empty containers before they are full to avoid spills.
- Use a cover to transport interceptor contents to rendering barrel.
- Provide employees with the proper tools (ladles, ample containers, etc.) to transport materials without spilling.

## Maintenance

Maintenance is key to avoiding FOG blockages. For whatever method or technology is used to collect, filter and store FOG, ensure that equipment is regularly maintained. All staff should be aware of and trained to perform correct cleaning procedures, particularly for under-sink interceptors that are prone to break down due to improper maintenance. A daily and weekly maintenance schedule is highly recommended.

- Contract with a management company to professionally clean large hood filters. Small hoods can be hand-cleaned with spray detergents and wiped down with cloths for cleaning. Hood filters can be effectively cleaned by routinely spraying with hot water with little or no detergents over the mop sink that should be connected to a grease trap. After hot water rinse (separately trapped), filter panels can go into the dishwasher. For hoods to operate properly in the removal of grease-laden vapors, the ventilation system will also need to be balanced with sufficient make-up air.



NORTH CAROLINA DEPARTMENT OF  
ENVIRONMENT AND NATURAL RESOURCES  
DIVISION OF POLLUTION PREVENTION AND  
ENVIRONMENTAL ASSISTANCE AND  
DIVISION OF ENVIRONMENTAL HEALTH



NORTH CAROLINA  
PRETREATMENT CONSORTIUM



- Skim/filter fryer grease daily and change oil when necessary. Use a test kit provided by your grocery distributor rather than simply a “guess” to determine when to change oil. This extends the life of both the fryer and the oil. Build-up of carbon deposits on the bottom of the fryer act as an insulator that forces the fryer to heat longer, thus causing the oil to break down sooner.
- Collect fryer oil in an oil rendering tank for disposal or transport it to a bulk oil rendering tank instead of discharging it into a grease interceptor or waste drain.
- Cleaning intervals depend upon the type of food establishment involved. Some facilities require monthly or once every two months cleaning. Establishments that operate a large number of fryers or handle a large amount of fried foods such as chicken, along with ethnic food establishments may need at least monthly cleanings. Full-cleaning of grease traps (removing all liquids and solids and scraping the walls) is a worthwhile investment. Remember, sugars, starches and other organics accumulate from the bottom up. If sediment is allowed to accumulate in the trap, it will need to be pumped more frequently.
- Develop a rotation system if multiple fryers are in use. Designate a single fryer for products that are particularly high in deposits, and change that one more often.

## Oil & Grease Collection/Recycling & Food Donations

FOG are commodities that if handled properly can be treated as a valuable resource.

- Begin thinking of oil and grease as a valuable commodity. Some rendering companies will offer services free-of-charge and others will give a rebate on the materials collected. Note that these companies must be properly permitted by the Division of Waste Management, Solid Waste Section at 919.733.0692, in order to remove FOG from a facility. A list of grease collectors can be found in the *Directory of Markets for Recyclable Materials* at [www.p2pays.org/DMRM](http://www.p2pays.org/DMRM) or by calling DPPEA at 1.800.763.0136.
- Use 25-gallon rendering barrels with covers for onsite collection of oil and grease other than from fryers. Educate kitchen staff on the importance of keeping outside barrels covered at all times. During storms, uncovered or partially covered barrels allow storm water to enter the barrel resulting in oil running onto the ground and possibly into storm drains, and can “contaminate” an otherwise useful by-product.
- Use a 3-compartment sink for ware washing. Begin with a hot pre-wash, then a scouring sink with detergent, then a rinse sink.

- Make sure all drain screens are installed.
- Prior to washing and rinsing use a hot water ONLY (no detergent) prerinse that is separately trapped to remove non-emulsified oils and greases from ware washing. Wash and rinse steps should also be trapped.
- Empty grill top scrap baskets or scrap boxes and hoods into the rendering barrel.
- Easy does it! Instruct staff to be conservative about their use of fats, oils and grease in food preparation and serving.
- Ensure that edible food is not flushed down your drains. Edible food waste may be donated to a local food bank. Inedible food waste can be collected by a local garbage feeder who will use food discards for feeding livestock. Food donation is a win-win situation. It helps restaurants reduce disposal costs and it puts the food in the hands of those who can use it. Check the *Directory of Markets for Recyclable Materials* for a list of food waste collectors.

## Grease Traps

- For grease traps to be effective, the units must be properly sized, constructed, and installed in a location to provide an adequate retention time for settling and accumulation of the FOG. If the units are too close to the FOG discharge and do not have enough volume to allow amassing of the FOG, the emulsified oils will pass through the unit without being captured. For information on properly locating, constructing, and sizing grease traps, contact your local county and city representatives and examine EPA guidance documents.
- Ensure all grease-bearing drains discharge to the grease trap. These include mop sinks, woks, wash sinks, prep sinks, utility sinks, pulpers, dishwashers, prerinse sinks, can washes, and floor drains in food preparation areas such as those near a fryer or tilt/steam kettle. No toilet wastes should be plumbed to the grease trap.
- If these suggested best management practices do not adequately reduce FOG levels, the operator may consider installing a second grease trap with flow-through venting. This system should help reduce grease effluent substantially.

## Consumer Tip

Buyer beware! When choosing a method of managing your oil and grease, ensure that it does what the vendor says it will do. Some technologies or “miracle cures” don’t eliminate the problem but result in grease accumulations further down the sewer line. “Out of sight” is not “out of mind.” Check the vendor’s references.



The **Grease Goblin** is the mascot for DPPEA's Oil and Grease Management Program. He serves as a reminder to keep grease out of sinks and drains before it becomes a nuisance.



## **Appendix B:**

# **Grease Removal Device Maintenance Form**

# Grease Removal Device Maintenance Form

## City of Elizabeth City FOG Program



Date: \_\_\_\_\_

FOG ID #: \_\_\_\_\_

SERVICE EVENT: \_\_\_\_\_

*(Pump out, Sampling, Special Event)*

Food Handling Facility: \_\_\_\_\_

Name/Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Telephone: \_\_\_\_\_

Signature of: \_\_\_\_\_ Kitchen Manager

\_\_\_\_\_ Waste Hauler

Waste Hauler Name/Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

NC Permit # \_\_\_\_\_

**Record of Service:** *(Only Grease Interceptor facilities need to measure grease/solids depths.)*

Grease/Solids Depth: \_\_\_\_\_ in. (grease + solids depth) / \_\_\_\_\_ in. (normal liquid depth) x 100 = \_\_\_\_\_ %

Total Gallons Pumped Out: \_\_\_\_\_ *(Interceptor and Trap removal facilities must complete.)*

Description of Service: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Suggestions For Maintenance/Management: \_\_\_\_\_

\_\_\_\_\_

Destination of Discharge: *(Waste Processor Name/Location)* \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

LAS Permit # \_\_\_\_\_

Permit Operator: \_\_\_\_\_ (Print)

cc: City of Elizabeth City, Department of Public Works





## **Appendix C:**

# **Grease Interceptor Inspection Form**

# City of Elizabeth City, NC

## FOG Program - Grease Interceptor Inspection Form



Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Inspector: \_\_\_\_\_

### Site Information

Food Handling Facility: \_\_\_\_\_

FOG ID #: \_\_\_\_\_

Location: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Contact name: \_\_\_\_\_ Title: \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_

### Interceptor Inspection

Last date of Inspection: \_\_\_\_\_

1. Interceptor location: \_\_\_\_\_

(sketch on back)

2. Interceptor type: \_\_\_\_\_

3. Interceptor size: \_\_\_\_\_ gallons,  
 Dimensions (L x W) \_\_\_\_\_

Trap: \_\_\_\_\_ lb \_\_\_\_\_ gpm

4. Access manholes in place: Y / N

5. Sample tee / sample point on interceptor: Y / N

	1 <sup>st</sup> Compartment	2 <sup>nd</sup> Compartment	3 <sup>rd</sup> Compartment
<b>Grease Cap =&gt;</b>	in / ft	in / ft	in / ft
<b>Solids Depth =&gt;</b>	in / ft	in / ft	in / ft

Observations/Comments:

\_\_\_\_\_  
 \_\_\_\_\_

### Interceptor Sampling

Interceptor Sampled: Y / N Date: \_\_\_\_\_ Time: \_\_\_\_\_

Sample ID: \_\_\_\_\_ Sample Type: Grab / Composite

PH: \_\_\_\_\_ Temp: \_\_\_\_\_

### Fats/Grease/Oil Removal

1. Contracted company (grease removal): \_\_\_\_\_

2. Date of last service (grease removal): \_\_\_\_\_

3. Pumping frequency: \_\_\_\_\_

4. Records kept of interceptor service: Y / N

Violation: Y / N Type: \_\_\_\_\_

Cause of Violation: \_\_\_\_\_



## **Appendix D:**

# **Grease Removal Device Maintenance Log**





## **Appendix E:**

# **Grease Interceptor Variance Request Form**

# Grease Interceptor Variance Request

City of Elizabeth City, NC



Date: \_\_\_\_\_

**Variance Application Fee  
(\$300) must be received  
prior to consideration of  
variance request.**

**Food Handling Facility:**

Facility Name: \_\_\_\_\_

Facility Mailing Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_

*(If different  
from above.)*

\_\_\_\_\_

\_\_\_\_\_

Contact/Title: \_\_\_\_\_

Telephone: \_\_\_\_\_

*A variance is to provide specific exceptions to the Fats, Oils and Grease (FOG) program of the City of Elizabeth City, NC. Said variance is intended to give food handling facilities an avenue to provide substantial evidence to modify FOG program requirements while meeting the intent of the City Sewer Use Ordinance/FOG Control Ordinance revised on September 9, 2002. If the variance request is approved and modifications are granted, all other requirements of the Sewer Use Ordinance/ FOG Control Ordinance, and any other requirements, remain in effect.*

*I understand that if a variance request is approved and substantial changes are later made in terms of food service (menu or production), seating capacity, or handling procedures, the variance may become void. I also understand that if this facility does not comply with all conditions of approval that may be made in granting this variance request or, if the City subsequently obtains evidence that excessive FOG is entering the sanitary sewer collection system from this facility or contributes to a sanitary sewer overflow, the variance may become void. Fees for sampling and laboratory analyses, if required, are in addition to the Variance Application Fee.*

*In completing this Variance Request, I certify under penalty of law that this document and all attachments were prepared under my direction or my supervision of qualified personnel. To the best of my knowledge, the information submitted herein is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine or imprisonment for knowing violations.*

\_\_\_\_\_/\_\_\_\_\_  
Signature of Authorized Representative / Title (if signature is not the "Contact" listed above)

# Grease Interceptor Variance Request

City of Elizabeth City, NC



1. **Written explanation for the need to vary from the City of Elizabeth City's FOG Program.**  
*(Separate Letter may be attached)*

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2. **Food handling facility's hours of operation:**

Monday \_\_\_\_\_ Tuesday \_\_\_\_\_ Wednesday \_\_\_\_\_ Thursday \_\_\_\_\_  
Friday \_\_\_\_\_ Saturday \_\_\_\_\_ Sunday \_\_\_\_\_

If seasonal, identify months of operation. \_\_\_\_\_

3. **Provide information on Grease Separation Device(s):** *(Attach additional sheet(s) if necessary):*

Location: \_\_\_\_\_

Size (Capacity): \_\_\_\_\_

Manufacturer: \_\_\_\_\_

Model #: \_\_\_\_\_

Location: \_\_\_\_\_

Size (Capacity): \_\_\_\_\_

Manufacturer: \_\_\_\_\_

Model #: \_\_\_\_\_

Location: \_\_\_\_\_

Size (Capacity): \_\_\_\_\_

Manufacturer: \_\_\_\_\_

Model #: \_\_\_\_\_

# Grease Interceptor Variance Request

City of Elizabeth City, NC



**4. Provide Maintenance/Service Information:**

Frequency of Service: \_\_\_\_\_

Briefly describe how maintenance will be conducted:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Who conducts service? \_\_\_\_\_

Grease Hauler:

Name: \_\_\_\_\_

Contact: \_\_\_\_\_

Phone: \_\_\_\_\_

**5. List all major equipment used for food preparation (i.e. grills, fryers, woks, etc. – include sizes/capacities if applicable).**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**6. Total Seating Capacity:** \_\_\_\_\_

**7. Does your establishment ever utilize catering or off-site food preparation companies to provide meals?**

YES or NO (Circle)

**If Yes, are any of the kitchen sink fixtures used to wash soiled dishes?**

YES or NO (Circle)

**8. Provide an up-to-date copy of the indoor and outdoor plumbing plans including facility sewer connection, floor drains, grease removal equipment, sinks, restrooms, etc.** (Blue prints are acceptable or a hand drawn sketch to scale may be acceptable in some cases.)

**9. Submit a copy of the food service menu.** (Breakfast, lunch, dinner, snacks, etc.)

**10. Is all food served on paper plates?** (Plates do not need to be washed.)

YES or NO (Circle)



# Grease Interceptor Variance Request

## City of Elizabeth City, NC



11. List kitchen fixture locations, intended use, number of compartments (i.e. Pre-rinse, 1-2-3-4 compartment wash sinks, prep sinks, dishwasher, garbage disposal, etc.)

Location	Intended Use <i>(Ex. Wash, prep., prerinse)</i>	# of Compartment <i>(ex. 1, 2, 3, 4)</i>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

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**Reviewed by City of Elizabeth City, NC:**

\_\_\_\_\_  
*Name/Title*

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Department*

Variance Request is:  **Approved**  **Denied**  **Requires a Variance Study**

If approved, the City of Elizabeth City allows the following specific exception(s) to the FOG Program.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

With the following conditions *(use additional pages if necessary)*:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_