Harpeth Valley Utilities District

Fats, Oils, and Grease Management Program

For Food Service Establishments

Effective Date: March 27, 2017

Amended: April 19, 2018

In accordance with requirements of the United States Environmental Protection Agency, Harpeth Valley Utilities District has adopted a Capacity, Management, Operation, and Maintenance program for its Sanitary Sewer Collection System. As a subset of that program, the District has adopted a specific Fats, Oils, and Grease Management (FOG) Program for food service establishments. The purpose of this specific program is to prevent sewer system overflows due to blockages caused by uncontrolled discharges of fats, oils, and grease to the public sanitary sewer collection system.

This document serves as an overview of the District's approved FOG program and provides basic requirements for new and existing customer compliance. This document updates and supersedes the District's original FOG program documentation dated January 2004.

I. Scope and Purpose

To prevent sanitary sewer system blockages, obstructions, and overflows due to the contribution and accumulation of fats, oils, and grease from food service establishments.

II. Definitions

1. Best Management Practices (BMPs): Schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the introduction of FOG into the District's sanitary sewer system.

2. District: Harpeth Valley Utilities District of Davidson and Williamson Counties, Tennessee.

3. Enforcement Action: Penalty or penalties, to be determined by the District, up to and including water service interruption and/or termination.

4. Fats, Oils, and Grease (FOG): 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 established in the United States Code of Federal Regulations 40 CFR 136 and may be referred to herein as "grease" or "greases."

5. Food Service Establishment (FSE): Any establishment, business or facility engaged in preparing, serving or making food available for consumption including but not limited to; restaurants, grocery stores, hotels, hospitals, nursing homes, retirement centers, prisons, bars/lounges, malls, retail outlets and mobile food units. FSEs shall be classified as follows:

    a. *Class 1A*: Delis (NAICS 445210), Snack and Beverage Bars engaged in the sale of cold-cut and heated foods with no frying or grilling on site (NAICS 722515), and Mobile Food Vendors (NAICS 722330).

    b. *Class 1B*: Ice cream and frozen yogurt shops (NAICS 311520), doughnut shops, pizzerias and large coffee shops with no frying or grilling.

    c. *Class 2*: Limited Service Restaurants (fast food facilities, drive-in, carry-out) as defined by NAICS 722513, Caterers (NAICS 722320), Delis/Sandwich Shops or any other Class 1A or Class 1B facility with frying, grilling, or rotisserie on site, Grocery Stores (NAICS 445110), Convenience Stores and Gasoline stores with Convenience Stores that engage in the on-site preparation of food (NAICS 452112).

    d. *Class 3*: Full Service Restaurants as defined by NAICS 722511

    e. *Class 4*: Buffet and Cafeteria Facilities as defined by NAICS 722514.

    f. *Class 5*: Institutions (Schools, Hospitals, Nursing Homes, Prisons, etc.) which include NAICS classifications 611110, 611310, 623110, 623311, 623312, 722310, 813110, and 922140, but not to exclude self-run operations.

    A FSE having already began service as a FSE prior to the effective date of the District's FOG Management Program shall be considered existing.

6. Grease Interceptor: A device for separating and retaining wastewater FOG prior to wastewater exiting the FSE and entering the District's sanitary sewer system. Grease interceptors are large

tanks designed with a baffle wall that separates the influent and effluent chambers of the tank which provides FOG control for a FSE. Grease interceptors must be located on the exterior of and in close proximity to the FSE unless existing utilities, existing adjacent structures, excavation constraints, or limited land availability, as determined by the District, warrants an alternate location. The installation of grease interceptors must also comply with locally adopted or amended plumbing and building codes. "District approved grease interceptors" shall refer to grease interceptors that comply with this Program and the District's most current Standard Specifications for Wastewater.

7. Grease Trap: Devices typically identified as an "under the sink" trap, a small container with baffles, or a floor trap.

8. NAICS: North American Industry Classification System, using 2012 classifications. The website is found at http://www.census.gov/eos/www/naics/.

9. Non-Compliance Notification (NCN): A written notification from the District (on District letterhead) to the FSE that a practice, an action, grease interceptor and/or wastewater discharge is noncompliant with District regulations or policies. A NCN informs the FSE that an action is required of the FSE within a specified timeframe designated by the District. Failure to comply with the specified action within the designated timeframe may result in enforcement action against the FSE.

III. General Requirements

1. The successful removal of fats, oils, and grease (FOG) from wastewater originating from a Food Service Establishment (FSE) is the sole responsibility of said FSE. Damages and/or blockages sustained by the District's sanitary sewer system due to improper, inadequate or negligent removal of FOG from a FSE's wastewater are the liability of the FSE and may result in enforcement action against the FSE.

2. All new and existing FSEs, with the exception of Class 1A FSEs, are required to have District approved grease interceptors installed, maintained and operating properly, in accordance with this Program. Existing FSEs operating without District approved grease interceptors are required to comply with the applicable requirements of **Section VI – Special Requirements for Existing FSEs**.

3. Grease traps, while not prohibited by the District, are not considered acceptable devices by the District to eliminate uncontrolled discharge of FOG to the public sanitary sewer collection system.

4. The District recommends that FSEs maintain records of cleaning and maintenance of grease interceptors at the FSE location. Grease interceptor maintenance records should include the date of cleaning, name of the company or person conducting the cleaning/maintenance, and the estimated/actual volume of grease wastewater removed. A grease waste hauler completed manifest should include this information.

5. Grease interceptors shall be accessible for inspection purposes by the District or their representative. This requirement includes both right of entry, as specified within **Section IX – Right of Entry for Inspection and Monitoring**, as well as refraining from placement of objects

on or within the vicinity of the grease interceptor which would impede adequate inspection of the grease interceptor.

6. Grease interceptor access openings shall be clear and free from mulch, gravel and other debris which could enter the grease interceptor and cause operational issues.
7. Introduction of any additives into a FSE wastewater system for the purpose of emulsifying FOG is prohibited.
8. Discharge of wastes from toilets, urinals, and other fixtures containing fecal materials to sewer lines routed to a grease interceptor is prohibited.
9. Discharge of any waste including FOG and solid materials removed from a grease interceptor into the District's sanitary sewer system is prohibited.
10. The shared use of a grease interceptor by multiple FSEs is prohibited.
11. In special circumstances and with prior approval by the District, a FSE may utilize multiple grease interceptors in series in order to achieve the total required grease interceptor capacity. In such instances, the required effluent filter must be installed on the final grease interceptor in the series.

IV. Grease Interceptor Plans Review and Sizing Requirements

1. New FSEs must submit to the District in electronic (PDF) and/or hard copy format, plumbing and architectural plans identifying all proposed cooking and food preparation equipment (fryers, grills, woks, etc.) as well as the number and drain sizes of dishwashers, sinks, floor drains, and other kitchen plumbing fixtures, during plans review for application of water and wastewater service.
2. Existing FSEs which are required to install and maintain District approved grease interceptors must comply with the applicable requirements of **Section VI – Special Requirements for Existing FSEs** of this Program.
3. The minimum grease interceptor sizing shall be determined by the District based upon FSE classification, the number and types of proposed kitchen equipment, and plumbing fixtures to be connected to the grease interceptor. An example worksheet is included in the appendix of this document.
4. *Minimum* acceptable size of grease interceptor for each FSE Classification will be as follows:
    a. *Class 1A*: District approved grease interceptor not required.
    b. *Class 1B*: 750 gallon grease interceptor
    c. *Class 2*: 1,000 gallon grease interceptor
    d. *Class 3*: 1,500 gallon grease interceptor
    e. *Class 4*: 2,000 gallon grease interceptor
    f. *Class 5*: 2,000 gallon grease interceptor

5. The use of grease traps will not reduce the required size of a grease interceptor.

V. Grease Interceptor Design and Installation Criteria

Grease interceptors shall meet the requirements specified in the District's most current Standard Specifications for Wastewater. These specifications are available on the District's website at www.hvud.com/html/contractor_developer_info.php.

VI. Special Requirements for Existing FSEs

1. Existing FSEs with grease interceptors will be required to upgrade, repair or replace their grease interceptor as applicable and subject to the District's approval in the event any of the following occurs:

    a. A facility change, upgrade, or remodel is performed at the FSE which affects the cooking or food preparation area resulting in the addition of plumbing fixtures and/or cooking and food preparation equipment. In such instances, if additional grease interceptor capacity is required in accordance with the District's grease interceptor sizing criteria, the FSE shall be required to make improvements to achieve the necessary grease interceptor capacity if:

        i. The required grease interceptor capacity exceeds the existing grease interceptor capacity by 1,000 gallons or more, and

        ii. The required grease interceptor capacity exceeds the existing grease interceptor capacity by 50% or more of the existing grease interceptor capacity.

    b. The existing grease interceptor is found to be damaged, defective, and/or in disrepair.

2. Existing FSEs without District approved grease interceptors may be allowed to continue current operations without installing District approved grease interceptors until such time as:

    a. A change of FSE ownership occurs, and/or

    b. A facility upgrade or remodel is performed at the FSE, and/or

    c. The District determines that the FSE is the cause of a FOG blockage in the District's sanitary sewer collection system.

3. Any existing FSE which intends to perform a facility upgrade or remodel must submit to the District in electronic (PDF) and/or hard copy format, plumbing and architectural plans identifying all proposed cooking and food preparation equipment (fryers, grills, woks, etc.) as well as the number and drain sizes of dishwashers, sinks, floor drains, and other kitchen plumbing fixtures.

4. Existing FSEs which are required to install and maintain a District approved grease interceptor for any reason other than a facility upgrade or remodel must permit the inspection of the FSE's cooking and food preparation areas by District representatives in order for the District to determine the minimum required grease interceptor capacity. During this inspection, District representatives will inform the FSE owner which plumbing fixtures must be drained, separately from the sanitary sewer, to the proposed grease interceptor. Failure to allow for this inspection may result in enforcement action against the FSE.

5. The timeline by which the existing FSE must have a District approved grease interceptor installed and operational shall be determined on a case by case basis; the timeline will take into consideration the scope of work required in order for the FSE to be compliant with this Program as well as risks to the public sanitary sewer collection system. Failure to meet the established timeline may result in enforcement action against the FSE.

VII. Grease Interceptor Inspections and Cleaning/Maintenance Requirements

1. Inspections:

   a. The District utilizes a third party contractor to inspect all grease interceptors within the District's service area on a bi-annual basis. These inspections are a no cost service to the FSE. Right of entry for such inspections shall be granted in accordance with **Section IX - Right of Entry for Inspection and Monitoring** of this Program.

   b. Following an inspection, the third party contractor will provide the FSE with a summary report of the inspection. The summary report inspection will identify issues of non-compliance with this Program. If issues are identified, District staff will normally visit the site within one to four weeks to determine if the issues still exist. If those issues still exist, District staff will issue a non-compliance notification (NCN). The NCN will identify a timeframe for the issues to be addressed. Failure to address NCN issues in the allotted time may result in enforcement action against the FSE. ***A summary report of the inspection from the third party contractor shall not be construed as a NCN.***

2. FOG Effluent Filter

   a. A FOG effluent filter is required to be installed inside the outlet compartment of a grease interceptor connected to the outlet piping in accordance with the District's most current Standard Specifications for Wastewater. The FOG effluent filter is required in order to protect the District's sanitary sewer collection system from blockages or obstructions caused by FOG that can lead to sanitary sewer overflows (SSOs).

   b. Failure to routinely and adequately clean a grease interceptor will cause this device to block the outlet piping of the grease interceptor, resulting in a backup of wastewater in the FSE's FOG service line.

   c. The FOG effluent filter should be routinely cleaned by removing the filter from the filter housing connected to the outlet piping and washing the filter. Adequate and routine cleaning of the grease interceptor will greatly diminish the cleaning frequency required of the FOG effluent filter.

   d. Removal of the FOG effluent filter by the FSE is prohibited and will result in a NCN.

   e. Additionally, a FOG effluent filter found to be broken, cracked, clogged or otherwise deficient will result in a NCN.

3. Cleaning/Pumping:

   a. Grease interceptors should have the complete contents pumped or cleaned at minimum once every 90 days and more often, as needed. Additionally, grease interceptors should have the

complete contents pumped or cleaned when the total accumulation of surface FOG and settled solids combined reaches 25% of the grease interceptor's overall liquid depth.

b. Partial pumping of interceptor contents, or returning previously pumped contents to the interceptor (even if treated) is prohibited. Only clean, fresh water may be placed in an interceptor which has been pumped and/or cleaned.

c. Allowing surface FOG and settled solids to exceed 25% of the grease interceptor's overall liquid depth will result in a NCN.

4. General Maintenance

a. Grease interceptors and piping shall be maintained structurally sound and water tight.

b. Failure to maintain a sound and water tight grease interceptor, including relating piping will result in a NCN.

VIII. Best Management Practices (BMPs) and Prohibition of "Additives" for FOG Management

1. FSEs should implement BMPs that are recognized and are reasonably necessary to minimize the potential for accidental discharge of FOG into the District's sanitary sewer system. Examples of BMPs include, but are not limited to, the following:

a. Recycling waste cooking oil.

b. Posting "NO GREASE" signs above all kitchen sinks to remind employees.

c. "Dry Wiping" and scraping into a trash container as much food particles and grease residue from pots, pans, and plates as possible.

d. Using strainers in sink drains and floor drains to prevent large food particles and containers from going into the sewer line.

e. Using "dry" oil absorbent material or ice to make grease solidify. If an oil or grease spill occurs, cleaning up then disposing into a trash container.

f. Disposing of food items in the trash. Food grinder use is discouraged due to buildup of solids in the grease interceptor which causes decreased efficiency and the need to increase cleaning and pumping frequency of the grease interceptor.

g. Placing BMP posters near sinks or on employee bulletin boards.

h. Educating and training all employees on grease control.

2. The use of additives for grease management is prohibited. Additives include but are not limited to products that contain solvents, emulsifiers, surfactants, caustics, acids, enzymes and bacteria.

IX. Right of Entry for Inspection and Monitoring

The District or their authorized representative, upon presentation of proper credentials, shall have the right to enter the premises of FSEs to perform routine inspections of grease interceptors and determine whether the FSE is complying with the requirements of this Program. The District

may require the FSE to notify the District 24 hours prior to any pumping, cleaning or maintenance so the District can perform a visual inspection and condition assessment of the total grease interceptor tank.

APPENDIX

Harpeth Valley Utilities District

Food Service Establishment (FSE) Grease Interceptor Sizing Chart

Date:	
Name of Facility:	
Address:	
City / State / Zip:	
Contact Name:	
Phone No:	
Permit Tracking # (if applicable):	

***Instructions** : Enter the number of kitchen equipment / plumbing fixtures in the blue column. Fixture units and other automatically calculated values are denoted in green.*

	Equipment / Fixture Type	Fixture Equivalent / Multiplier		# of Units		Fixture Units
1)	4 Compartment Sink	4	X		=	
2)	3 Compartment Sink	3	X		=	
3)	2 Compartment Sink	2	X		=	
4)	Hand Sink	1	X		=	
5)	Dishwasher	4	X		=	
6)	Mop Sink	1	X		=	
7a)	First Floor Drain	3	X		=	
7b)	Subsequent Floor Drains	1	X		=	
8)	Floor Sinks	4	X		=	
9)	Wok Stove	4	X		=	
10)	Deep Fryer	3	X		=	
11)	Grill, Range, Rotisserie, Griddle	2	X		=	
12)	Garbage Grinder	4	X		=	
13)	Soup Kettle, Stove, Oven	1	X		=	
14)	Prep Table with Sink	1	X		=	
15)	Produce Sink	1	X		=	
			Total Equipment / Fixtures =		Total Fixture Units =	
			Facility Type =		Total Adj. Fixture Units =	
					Minimum Grease Interceptor Capacity Required (gallons) =	

HVUD Signoff:

Enter Facility Type in the blue cell above based upon FSE type and applicable facility descriptions below

FSE Type	Multiplier	Facility Description
1B	1	Ice cream and frozen yogurt shops (NAICS 311520), doughnut shops, pizzerias and large coffee shops with no frying or grilling
2	1.5	Limited Service Restaurants (fast food facilities, drive-in, carry-out) as defined by NAICS 722513, Caterers (NAICS 722320), Delis/Sandwich Shops or any other Class 1 facility with frying, grilling, or rotisserie on site, Grocery Stores (NAICS 445110), Convenience Stores and Gasoline stores with Convenience Stores that engage in the on-site preparation of food (NAICS 452112).
3	2	Full Service Restaurants (NAICS 722511)
4	2.5	Buffet and Cafeteria Facilities (NAICS 722514)
5	3	Institutions (Hospitals, Schools, Nursing Homes, Prisons, etc) (NAICS 611110, 611310, 623110, 623311, 623312, 722310, 813110, 922140)

**Sizing for businesses not shown above to be determined by District Staff*

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