

Fats, Oils and Grease Management Program

**City of Branson
Department of Public Works
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I Purpose and Intent

- (A) The purpose of this program is to provide implementation of a fats, oil, & grease (FOG) management program providing protection for the City of Branson wastewater collection & treatment systems.
- (B) The objective of FOG includes but not limited to:
 - (1) Minimize introduction of fat & soluble waters to the collection system.
 - (2) Provide effective means of interception of fats, oils & grease through proven effective FOG interceptors and Grease Recovery Units.
- (C) The program shall apply only to commercial food preparation establishments connected to the Branson Wastewater collection system.

II Definitions

Automatic Grease Recovery Unit. A device by design, to separate grease from wastewater within the unit and discharge such grease to automatically separate into a container for disposal. The automatic grease recovery unit shall conform to International plumbing Code (IPC) standards. Examples of automatic grease recovery units are Thermaco "Big Dipper" and Zurn's "1190 systems.

Building Sewer. The service line from the public sewer, or other place of disposal, to a point five feet outside the building wall, conveying wastewater from the premises of a user to the sewage system.

Common Grease Interceptor. A device to which grease wastes are directed from more than one facility with different operators or type of operations, such as food court or a shopping center.

Contact Person - The Contact Person shall mean the individual responsible for overseeing daily operation of the Food Preparation Establishment and who is responsible for overseeing the Food Preparation Establishment's compliance with the FOG Management Program as established herein.

Domestic Waste. The sewage produced from noncommercial or non-industrial activities, and which result from normal human living processes which are of substantially similar origin and strength to those typically produced in households.

Environmental Protection Agency or EPA. The U.S. Environmental Protection Agency or where appropriate, the term may also be used as a designation for the administrative or other duly authorized official of said agency.

FOG Disposal Facility- A facility for the collection and disposal of non-renderable Fats, Oils, and Grease.

FOG - Fats, Oils and Grease (FOG) - Animal and plant derived substances that may solidify or become viscous between the temperatures of 32°F and 150°F (0°C to 65°C), and that separate from wastewater by gravity. Any edible substance identified as grease per the most current EPA method as listed in 40-CFR 136.3.

FOG Interceptor - A passive tank installed outside a building and designed to remove fats, oils and grease from flowing wastewater while allowing wastewater to flow through it, and as further defined herein.

FOG Management Equipment- Refers to properly installed and operated FOG Interceptors and Grease Recovery Units as approved by the City of Branson Public Works Department .

Food Courts. Designated areas that are predominately found in shopping centers, malls or amusement parks that contain several food-preparation establishments with owners or operators that share space and plumbing facilities.

Food Preparation Establishment - Food Preparation Establishments include establishments that use food preparation processes and that are regulated by the Health Department. These facilities include but are not limited to restaurants, Hotel/Motel kitchens, hospitals, school kitchens, bars, factory cafeterias, clubs, delis, kiosks, tea rooms, snack bars, ice cream shops, fudge shops, food courts, coffee shops, cafeterias, diners and any other facility deemed to produce fats, oils, and grease.

Grab Sample. A sample which is taken from a waste stream on a one-time basis with no regard to the flow in the waste stream and without consideration of time.

Grease Recovery Unit (GRU)- All active indoor mechanical systems designed to remove fats, oils and grease by physical separation from flowing wastewater, as further defined herein.

Kiosk. A small structure with one or more open sides.

Person. Any individual, partnership, co-partnership, firm, company, governmental entity or any other legal entity, or their legal representatives, agents or assigns. The masculine gender shall include the feminine, the singular shall include the plural where indicated by the context.

Public Sewer. A sanitary sewer, other than a building sewer, within or without a public easement or right-of-way, and in which all owners of abutting properties have equal rights, and which is controlled by the City of Branson.

Renderable Fats, Oils and Grease – Refers to fats, oils and grease not contaminated by contact with wastewater, and which can be recycled by a rendering company. Renderable fats, oils, and grease sources include fryers, grills and exhaust hoods.

Renderable Fats, Oils and Grease Container - Refers to a closed, leak-proof container for the collection and storage of food grade fats, oils and grease.

Sanitary Sewer. A pipe which carries sewage and to which storm, surface and ground waters are not intentionally admitted.

Sewer. A pipe or conduit that carries wastewater.

Sewer System. The complete municipal sewer system, including, sanitary sewer mains, manholes, lift stations, lateral sewer lines and other sewer facilities constructed or acquired by the City, together with all improvements, extensions and additions to the sewer system, or any part thereof, and shall include all Sewer.

Shall is mandatory; **May** is permissive.

User. Any person who contributes, causes or permits the contribution of wastewater into the City of Branson's Wastewater Treatment System.

Wastewater. The spent water of a community. From the standpoint of source, it may be a combination of the liquid and water-carried wastes from residences, commercial buildings, industrial plants and institutions, together with any groundwater, surface water and storm water that may be present.

Abbreviations.

The following abbreviations shall have the designated meanings:

CAM	Common Area Maintenance
CFR	Code of Federal Regulations.
CITY	City of Branson
EPA	Environmental Protection Agency.
Gpd	Gallons per day
GPM	Gallons per minute
GRU	Grease Recovery Unit
IPC	International Plumbing Code
L	Liter.
mg	Milligrams.
mg/L	Milligrams per liter.
PDI	Plumbing and Drainage Institute
POA	Property Owners Association

III Installation of FOG Management Equipment.

- A. All new and existing Food Preparation Establishments shall install a FOG Interceptor, subject to the following exceptions and exclusions.
- B. In the event that the Director of Public Works determines that the Food Preparation Establishment cannot install a FOG Interceptor due to physical limitations or other extreme circumstances, the Food Preparation Establishment shall install a Grease Recovery Unit.
- C. All Food Preparation Establishments requiring FOG Management Equipment shall submit the design and specs for review as a part of the City's building permit process. All costs and related expenses associated with the installation and connection of the FOG Management Equipment shall be borne by the Food Preparation Establishment. The Food Preparation Establishment shall indemnify the City of Branson and its Agents for any loss or damage that may directly or indirectly occur due to the installation of the FOG management equipment.
- D. All Food Preparation Establishments requiring FOG Management Equipment shall immediately designate a Contact Person and shall inform the Public Works Department of said designation. In the event the Contact Person changes, the Food Preparation Establishment shall promptly inform the Public Works Department of said new designation.

IV FOG Management Equipment Requirements.

- A. The following plumbing fixtures shall be constructed, operated and maintained, in a manner to ensure that the discharge of food preparation wastewater is directed solely to the FOG Management Equipment:
 - (1) Dishwasher;
 - (2) 3 vat sink;
 - (3) Any prep sink used for thawing or washing meats, poultry or fish;
 - (4) Mop sinks;
 - (5) Ice cream dipper wells;
 - (6) Floor drains in kitchen area;
 - (7) Garbage disposal; and
 - (8) Any drain from the trash pad where a bulk grease bin is located.
- B. No valve or piping bypass equipment that could allow the discharge of food preparation wastewater (containing FOG) to directly enter the building sewer shall be allowed.
- C. The size of the required FOG Interceptor shall be determined by the number of seats and/or type of food being prepared.
 - (1) Food Preparation Establishments that have a seating capacity of 249 or less, either individually or combined, shall have a FOG Interceptor with a minimum size of 1000 gallons.

- (2) Food Preparation Establishments that have a seating capacity of 250 to 350, either individually or combined, shall have a FOG Interceptor with a minimum size of 1500 gallons.
 - (3) Food Preparation Establishments that have a seating capacity in excess of 350, either individually or combined, shall have a FOG Interceptor with a minimum size of 2000 gallons.
- D. The site of the FOG Interceptor shall be at the discretion of the Public Works and Health Departments.
 - E. All FOG Interceptors shall be inspected upon installation, before being covered up, by a representative of the Public Works Department.
 - F. The Contact Person at each Food Preparation Establishment shall notify the Public Works Department when the FOG interceptor or GRU equipment is ready for inspection and connection to the public sewer. The connection and testing shall be made under the supervision of the plumbing inspector.
 - G. All applicable International Plumbing codes (IPC) shall be followed during the installation of the FOG interceptor or GRU equipment.
 - H. The FOG Interceptor shall service only kitchen flows including mop sinks. The installation of a FOG interceptor shall meet all the requirements of the International Plumbing Code and be in accordance with FOG interceptor detail as per Appendix A.

V Exempt Establishments

The City requires FOG interceptors for all food preparation establishments. The City also realizes that there are cases of which a FOG interceptor, or GRU are over-kill or impractical. The following exceptions are allowed:

- A. Limited Continental Breakfast – No FOG management equipment is required as long as food is not prepared on-site, paper supplies only are used, and that milk products are not poured down a sink or other plumbing fixtures. The menu cannot exceed cereals, bagels, doughnuts, biscuits and gravy (Powder mixture type or pre-mixed in container only).
- B. Catered meals are allowed as long as all dishes, serving pans, etc. are removed to an off-site approved facility with a FOG interceptor for cleanup.
- C. Food establishments which serve only pre-packaged food such as;
 - (1) Ice Cream – pre-packaged;
 - (2) Sandwiches – pre-packaged;
 - (3) Fudge – pre-packaged;
 - (4) Kiosks – Not required unless in a mall situation where there must

be a designable facility with FOG management equipment for clean-up purposes.

D. Specifically approved planned development which allows specific uses.

VI Common FOG Interceptors

More than one (1) business can connect to a common FOG interceptor provided the number of seats connected does not exceed the capacity of the FOG interceptor as outlined above. If the piping length from the last grease producing fixture is greater than 200' from the FOG interceptor the City may also require as determined by the Public Works Director a GRU to be installed in the facility.

A. FOG interceptors serving more than one business must provide documentation of a maintenance agreement between responsible parties such as:

- (1) (POA) Property Owners Association;
- (2) (CAM) Common Area Maintenance;
- (3) Agreement between owner/operator showing physical responsibility for operation and maintenance of FOG interceptor and its pumping and all related piping and equipment.

VII Requirements for FOG Equipment Maintenance

- A. The FOG Management Equipment shall be maintained continuously in satisfactory and effective operation, at the Food Preparation Establishment's expense.
- B. The Contact Person shall be responsible for the proper removal and disposal, by appropriate means, of the collected material removed from the FOG Management Equipment.
- C. A record of all FOG Management Equipment maintenance activities shall be maintained on the premises for a minimum of two (2) years.
- D. Chemical and/or biological additives that could cause the fats, oils and grease fraction to be released from the FOG Management Equipment are not permitted without the written approval of the Director of Public Works.
- E. The Contact Person shall ensure that the FOG Interceptor is inspected when pumped to ensure that all fittings and fixtures inside the interceptor are in good condition and functioning properly. The depth of grease inside the tank shall be measured and recorded in the maintenance log during every inspection along with any deficiencies, and the identity of the inspector.

- F. The City at any time may take grab samples and perform lab tests of the effluent of FOG management equipment to assure its effectiveness.
- G. The Contact Person shall determine the frequency at which its FOG Interceptor(s) shall be pumped according to the following criteria:
- (1) The FOG Interceptor shall be completely cleaned by a licensed waste hauler when 25% of the operating depth of the FOG Interceptor is occupied by solids or a minimum of once every three (3) months, whichever is more frequent.
 - (2) If the Contact Person can provide data demonstrating that less frequent cleaning of the FOG Interceptor will not result in grease and settled solids level in excess of 25% of the operating depth of the FOG Interceptor, the Director of Public Works may allow less frequent cleaning. The Contact Person shall provide data including pumping receipts for cleanings of the FOG Interceptor, complete with a report from the FOG hauler indicating the grease level at each cleaning, and the FOG Interceptor maintenance log.
 - (3) A maintenance log shall be maintained on the premises, and shall include the following information: dates of all activities, volume pumped, grease depth, hauler's name, location of the waste disposal, means of disposal for all material removed from the FOG Interceptor, and the name of the individual recording the information. The maintenance log and waste hauler's receipts shall be made available to the Agent for inspection on demand. Interceptor cleaning and inspection records shall be maintained on file a minimum of two (2) years.
- H. All removal and hauling of the collected materials must be performed by State licensed waste hauler. Pumping shall include the complete removal of all contents, including floating materials, wastewater and settled sludge. Decanting back into the FOG Interceptor shall not be permitted. FOG interceptor cleaning shall include scraping excessive solids from the wall, floors, baffles and all piping. Pumped materials shall be disposed of at an approved disposal facility.
- I. The Contact Person shall be responsible for the cost and scheduling of all repairs to FOG Management Equipment components. Repairs required by the City shall be completed within thirty (30) days after the date of written notice is received by the Contact Person.

VIII Discharge Limits

- A. No facility with or without FOG management equipment shall discharge or cause to be discharged any wastewater with a FOG concentration in excess of one hundred (100) milligrams per liter, as determined by the currently approved test for total recoverable fats and grease listed in 40 CFR 136.3, or in concentrations or in quantities which will harm either

the sewers, the Wastewater Treatment Facility, as determined by the Public Works Director.

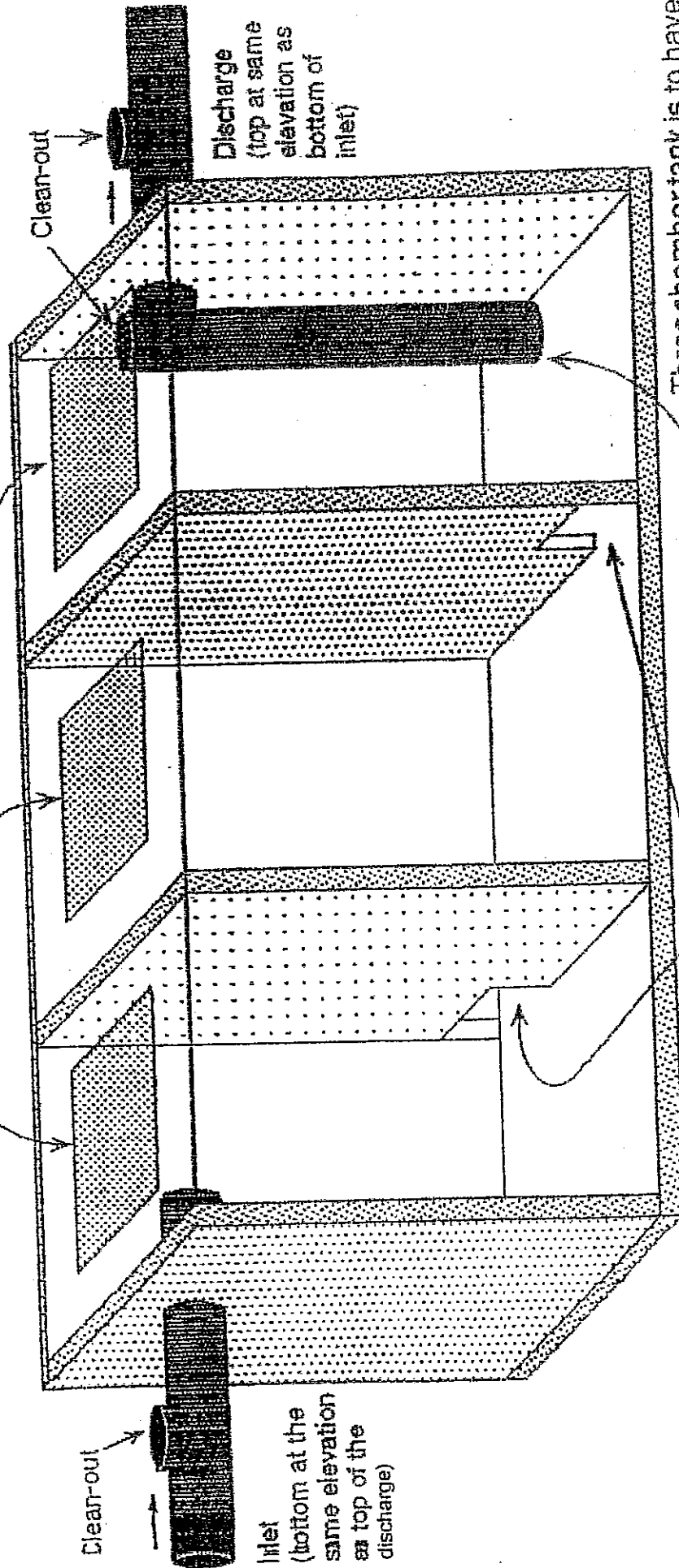
IX FOG Minimization.

- A. The Contact Person shall make every practical effort to reduce the amount of FOG contributed to the sewer system.
- B. Renderable FOG shall not be disposed in any sewer, septic tank or FOG Interceptor. All renderable FOG shall be stored in a separate, covered, leak-proof, Renderable FOG Container, stored out of reach of vermin, and collected by an approved waste hauler.
- C. Small quantities of FOG scraped or removed from pots, pans, dishes and utensils shall be directed to the trash receptacle for proper solid waste disposal.

CITY OF BRANSON - FOG INTERCEPTOR DETAIL

Top must be capable of supporting anticipated loads.

24" DIAMETER SEWER MAINS OR
OR
2 ft by 2 ft access hatch to ground level with cover



Discharge (top at same elevation as bottom of inlet)

Clean-out

Three chamber tank is to have a capacity of 1000 gallons. Minimum piping diameter is 4 inches. Wall to be made of reinforced concrete.

22" clearance from bottom of pipe to floor of tank

12" by 12" openings through interior partitions on opposite corners to increase length of flow path

Clean-out
Inlet (bottom at the same elevation as top of the discharge)