City of Derby Water Pollution Control Authority
Fats, Oils, and Grease Pretreatment Regulations
Adopted March 15, 2017

Section 1. Purpose.

The purpose of this regulation is to outline the wastewater pretreatment requirements for Food Preparation Establishments and other commercial facilities that discharge fats, oils, and grease in their wastewater flow. All new and existing facilities that generate and discharge fats, oils, and grease in their wastewater flow shall install, operate, and maintain a FOG pretreatment system. The requirements of these Regulations shall supplement and be in addition to the requirements of the City of Derby Water Pollution Control Authority (Derby WPCA) Sewer Regulations.

Section 2. Definitions.

Derby WPCA Operator – Authorized representative of the Derby WPCA.

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 Pretreatment Program.

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 RECOVERY UNIT - All active indoor mechanical systems designed to remove fats, oil, and grease by physical separation from flowing wastewater, as further defined herein.

FOG PRETREATMENT SYSTEM - Refers to properly installed and operated FOG Interceptors and FOG Recovery Units as approved by the Derby WPCA.

FOOD PREPARATION ESTABLISHMENTS (FPE) - means Class III and Class IV food service establishments and any other facility determined by the Derby WPCA to discharge FOG above the set limits in Section 5(b)(2) of the Department of Environmental Protection's General Permit for the Discharge of Wastewater Associated with Food Preparation Establishments. These facilities shall include but not be limited to restaurants, hotel kitchens, hospital kitchens, school kitchens, bars, factory cafeterias and clubs. Class III and Class IV food service establishments shall be as defined under Section 19-13-B42 of the State Of Connecticut Public Health Code.

NON-RENDERABLE FATS, OILS, AND GREASE – Non-renderable fats, oils, and grease
is food grade grease that has become contaminated with sewage, detergents, or other constituents that make it unacceptable for rendering.

NOTIFICATION OF APPROVED ALTERNATE FOG PRETREATMENT SYSTEM - Written notification from the Derby WPCA for authorization to install and/or operate an alternate FOG Pretreatment System.

RENDERABLE FATS, OILS, AND GREASE – Renderable fats, oils, and grease is material that can be recovered and sent to renderers for recycling into various usable products. Renderable grease is created from spent products collected at the source, such as frying oils and grease from restaurants. This material is also called yellow grease.

RENDERABLE FATS, OILS, AND GREASE CONTAINER - Refers to a closed, leakproof container for the collection and storage of food grade fats, oil, and grease.

REGIONAL FOG DISPOSAL FACILITY - A facility for the collection and disposal of non-renderable FOG approved by the Connecticut Department of Environmental Protection.

Section 3. Application to Install a FOG Pretreatment System.

A. FOG Pretreatment Systems shall be provided for:

   a. All new and existing Food Preparation Establishments, including restaurants, cafeterias, diners, and similar non-industrial facilities using food preparation processes that have the potential to generate FOG in wastewater at concentrations more than the limits defined in this Regulations.

   b. New and existing facilities which, in the opinion of the Derby WPCA, require FOG Pretreatment Systems for the proper handling of wastewater containing fats, oils, or grease, except that such FOG Pretreatment Systems shall not be required for private living quarters or dwelling units.

B. All new Food Preparation Establishments which generate and discharge wastewater containing fats, oils, and grease and which will require a FOG Pretreatment System, as determined by the Derby WPCA, shall include the design and specifications for the FOG Pretreatment System as part of the sewer connection application as described in the Derby WPCA Sewer Use Regulations.

C. All existing Food Preparation Establishments which generate, and discharge wastewater containing fats, oils, and grease, and which require a new FOG Pretreatment System, as determined by the Derby WPCA, shall submit an application for the installation of a new FOG Pretreatment System within one (1) month of adoption of these regulations. The application shall be in accordance with Derby WPCA Sewer Use Regulations. The approved FOG Pretreatment System shall be installed within three (3) months of adoption of these regulations.

D. Existing Food Preparation Establishments which generate, and discharge wastewater containing fats, oils, and grease, and which have an existing non-complying FOG Pretreatment System may, as determined by the Derby WPCA, operate the existing FOG Pretreatment System. Such facilities
shall submit an application for an “Alternate FOG Pretreatment System” as described in Section 6 C. Such application shall be submitted within one (1) month of adoption of this Regulation.

E. All costs and related expenses associated with the installation and connection of the FOG Interceptor(s) or Alternate FOG Pretreatment System(s) shall be borne by the Food Preparation Establishment. The Food Preparation Establishment shall indemnify the Derby WPCA and its Agents for any loss or damage that may directly or indirectly occur due to the installation of the FOG Pretreatment System.

Section 4. Discharge Limits.

A. No facility 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, or Water Pollution Control Facility, as determined by the Derby WPCA.

Section 5. Pretreatment System Requirements.

A. An application for the design and installation of a FOG Pretreatment System shall be subject to review and approval by the Derby WPCA per the Derby WPCA Sewer Use Regulations, and subject to the requirements of all other applicable codes, Regulations, and laws.

B. Except as provided by Section 6, the wastewater generated from Food Preparation Establishments shall be treated to remove FOG using a FOG Interceptor.

C. Every structure at the subject facility shall be constructed, operated, and maintained, in a manner to ensure that the discharge of food preparation wastewater is directed solely to the FOG Interceptor, or Alternate FOG Pretreatment System. No valve or bypass piping that could prevent the discharge of food preparation wastewater from entering appropriate pretreatment equipment shall be present.

D. The Contact Person at each Food Preparation Establishment shall notify the Derby WPCA when the FOG Pretreatment System is ready for inspection and connection to the public sewer. The connection and testing shall be made under the supervision of the plumbing inspector, and/or Derby WPCA Operator.

E. All applicable local plumbing/building codes shall be followed during the installation of the FOG Pretreatment System.

F. FOG Interceptor Requirements.

(a) The FOG Interceptor shall be installed on a separate building sewer servicing kitchen flows and shall only be connected to those fixtures or drains which can allow fats, oils, and grease to be discharged into the sewer. This shall include:

(1) Pot sinks;
(2) Pre-rinse sinks, or dishwashers without pre-rinse sinks;
(3) Any sink into which fats, oils, or grease may be introduced;
(4) Soup kettles or similar devices;
(5) Wok stations;
(6) Floor drains or sinks into which kettles may be drained;
(7) Automatic hood wash units;
(8) Dishwashers without pre-rinse sinks; and
(9) Any other fixtures or drains that can allow fats, oils, and grease to be discharged into the sewer.

(b) No pipe carrying any wastewater other than from those listed in the Paragraph above shall be connected to the FOG Interceptor.

(c) No food grinder shall discharge to the FOG Interceptor.

(d) The FOG Interceptor shall be located so as to maintain the separating distances from well-water supplies set forth in Section 19-13-B51d of the Public Health Code.

(e) The following minimum-separating distances shall be maintained between the FOG Interceptor and the items listed below.

   (1) Property line 10 ft.
   (2) Building served (no footing drains) 15 ft.
   (3) Ground water intercepting drains, footing drains and storm drainage systems 25 ft.
   (4) Open watercourse 50 ft.

(f) The FOG Interceptor shall have a retention time of at least twenty-four (24) hours at the maximum daily flow based on water meter records or other calculation methods as approved by the Derby WPCA. The FOG Interceptor minimum capacity shall be 1,000 gallons. FOG Interceptors shall have a minimum of two compartments. The two compartments shall be separated by a baffle that extends from the bottom of the FOG interceptor to a minimum of five (5) inches above the static water level. An opening in the baffle shall be located at mid-water level. The size of the opening shall be at least eight (8) inches in diameter but not have an area exceeding 180 square inches.

(g) FOG Interceptor shall be watertight and constructed of precast concrete, or other durable material.

(h) FOG Interceptors constructed of precast concrete, shall meet the following requirements:

   (1) The exterior of the FOG Interceptor, including the exterior top and bottom and extension to grade manholes, shall be coated with a waterproof sealant.
   (2) All concrete FOG Interceptors shall be fabricated using minimum 4,000-psi concrete per ASTM standards with 4 to 7 percent air entrainment.
   (3) All structural seams shall be grouted with non-shrinking cement or similar material and coated with a waterproof sealant.
(4) Voids between the FOG Interceptors walls and inlet and outlet piping shall be grouted with non-shrinking cement and coated with a waterproof sealant.

(i) All non-concrete septic tanks must be approved for use by the Derby WPCA.

(j) The FOG Interceptor shall be accessible for convenient inspection and maintenance. No structures shall be placed directly upon or over the FOG Interceptor.

(k) The FOG Interceptor shall be installed on a level stable base that has been mechanically compacted with a minimum of six (6) inches of crushed stone to prevent uneven settling.

(l) Select backfill shall be placed and compacted around the FOG Interceptor in a manner to prevent damage to the tank and to prevent movement caused by frost action.

(m) The outlet discharge line from the FOG Interceptor shall be directly connected to the municipal sanitary sewer.

(n) The FOG Interceptor shall have a minimum liquid depth of thirty-six (36) inches.

(o) Separate clean-outs shall be provided on the inlet and outlet piping.

(p) The FOG Interceptor shall have separate manholes with extensions to grade, above the inlet and outlet piping. FOG Interceptors installed in areas subject to traffic shall have manhole extensions to grade with ductile iron frames and round manhole covers. The word "SEWER" shall be cast into the manholes covers. FOG Interceptors installed outside areas subject to traffic may have concrete risers with lids either having a minimum weight of 59 lbs. or shall be provided with a lock system to prevent unauthorized entrance. All manholes and extensions to grade providing accesses to the FOG Interceptor shall be at least seventeen (17) inches in diameter.

(q) Inlet and outlet piping shall have a minimum diameter of four (4) inches and be constructed of schedule 40 PVC meeting ASTM 1785 with solvent weld couplings.

(r) The inlet and outlet shall each utilize a tee-pipe on the interior of the FOG Interceptor. No caps or plugs shall be installed on the tee-pipes. The inlet and outlet shall be located at the centerline of the FOG Interceptor and at least twelve (12) inches above the maximum ground water elevation. The inlet tee shall extend to within 12 inches of the bottom of the FOG Interceptor. The inlet invert elevation shall be at least three (3) inches above the invert elevation of the outlet but not greater than four (4) inches. The outlet tee-pipe shall extend no closer than twelve (12) inches from the bottom of the FOG Interceptor and the diameter of this tee pipe shall be a minimum of four (4) inches.

(s) The diameter of the outlet discharge line shall be at least the size of the inlet pipe and in no event, less than four (4) inches.

(t) When necessary due to installation concerns, testing for leakage will be performed using either a vacuum test or water-pressure test.
(1) Vacuum Test - Seal the empty tank and apply a vacuum to two (2) inches of mercury. The tank is approved if 90 percent of the vacuum is held for two (2) minutes.

(2) Water-Pressure Test - Seal the tank, fill with water, and let stand for twenty-four (24) hours. Refill the tank. The tank is approved if the water level is held for one (1) hour.

Section 6. Alternate FOG Pretreatment System.

A. When it is not practical for the Food Preparation Establishment to install an outdoor inground FOG Interceptor per Section 5, an Alternate FOG Pretreatment System may be utilized upon approval by the Derby WPCA and upon receiving a "Notification of Approved Alternative FOG Pretreatment System." Approval of the system shall be based on demonstrated (proven) removal efficiencies and reliability of operation. The Derby WPCA will approve these systems on a case-by-case basis. The Contact Person may be required to furnish the manufacturer’s analytical data demonstrating that FOG discharge concentrations do not exceed the limits established in this Regulations.

B. Alternate FOG Pretreatment Systems shall consist of a FOG Recovery Unit meeting the requirements of Paragraph D below, unless there are special circumstances that preclude such installation, as approved by the Derby WPCA, and in accordance with Paragraph E.

C. Alternate FOG Pretreatment Systems shall meet the requirements of Section 5, A through E, and Section 5 F. (b) and (c) and shall be installed immediately downstream of each of the fixtures and drains listed in Section 5 F. (a).

D. Alternate FOG Pretreatment System Requirements.

   a. FOG Recovery Units shall be sized to properly pretreat the measured or calculated flows using methods approved by the Derby WPCA.

   b. FOG Recovery Units shall be constructed of corrosion-resistant material such as stainless steel or plastic.

   c. Solids shall be intercepted and separated from the effluent flow using a strainer mechanism that is integral to the unit.

   d. FOG Recovery Units shall operate using a skimming device, automatic draw-off, or other mechanical means to automatically remove separated FOG. This skimming device shall be controlled using a timer, FOG sensor, or other means of automatic operation. FOG Recovery Units operated by timer shall be set to operate no less than once per day.

   e. FOG Recovery Units shall be included with an internal or external flow control device.

   f. FOG Recovery Units shall be located to permit frequent access for maintenance, and inspection.
E. Other Alternate FOG Pretreatment System

a. Other Alternate FOG Pretreatment Systems that do not meet the requirements of Section 5 F or Section 6 D, may be considered for approval by the Derby WPCA on a case-by-case basis. The application shall include:

i. Documented evidence that the Alternate FOG Pretreatment System will not discharge FOG concentrations that exceed the discharge limits per Section 4.

ii. Plans and specifications for the proposed system including plans and profile of system installation, manufacturer’s literature, documentation of performance and any other information detailing the alternate system.

iii. A written Operation and Maintenance Plan, which shall include the schedule for cleaning and maintenance, copies of maintenance log forms, a list of spare parts to be maintained at the subject facility, and a list of contacts for the manufacturer and supplier. Following receipt of written Notification of Approved Alternate FOG Pretreatment System from the Derby WPCA, the Operation and Maintenance Plan shall be maintained on the premises. The plan shall be made available for inspection on demand by the Derby WPCA.

iv. A written FOG Minimization Plan, which shall include procedures for all Food Preparation Establishment employees to minimize FOG entering the wastewater collection system.

v. Description of a FOG Pretreatment Training Program for Food Preparation Establishment employees in minimization procedures.

b. A Notification of Approved Alternate FOG Pretreatment System may be granted for a duration, not to exceed three (3) years, with extensions, when demonstrated to the satisfaction of the Derby WPCA that the Alternate FOG Pretreatment System, Operation and Maintenance Plan, FOG Minimization Plan and FOG Pretreatment Training Program are adequate to maintain the FOG concentration in the wastewater discharge below the limits set in Section 4.

Section 7. Pretreatment Equipment Maintenance

A. The FOG Pretreatment System 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 Pretreatment System.

C. A record of all FOG Pretreatment System maintenance activities shall be maintained on the premises for a minimum of five (5) years.
D. 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.

E. The Contact Person shall determine the frequency at which its FOG Interceptor(s) shall be pumped according to the following criteria:
   
   a. 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 grease and settled solids, or a minimum of once every three (3) months, whichever is more frequent.

   b. If the Contact Person can provide data demonstrating that less frequent cleaning of the FOG Interceptor will not result in a grease level in excess of 25% of the operating depth of the FOG Interceptor, the Derby WPCA may allow less frequent cleaning. The Contact Person shall provide data including pumping receipts for four (4) consecutive 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.

   c. 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 Derby WPCA for inspection on demand. Interceptor cleaning and inspection records shall be maintained on file a minimum of five (5) years.

F. All removal and hauling of the collected materials must be performed by State approved waste disposal firms. Pumped material shall be disposed of at a Regional FOG Disposal Facility. 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.

G. The Contact Person shall be responsible for the cost and scheduling of all installation and maintenance of FOG Pretreatment System components. Installation and maintenance required by the Derby WPCA shall be completed within the time limits as given below:

<table>
<thead>
<tr>
<th>Violation</th>
<th>Days from inspection to Correct Violation</th>
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<tbody>
<tr>
<td>Equipment not registered</td>
<td>30 days</td>
</tr>
<tr>
<td>Installation violations (outdoor and indoor)</td>
<td>90 days</td>
</tr>
<tr>
<td>Operational violations</td>
<td>30 days</td>
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Section 8. FOG Minimization

A. The Contact Person shall make every practical effort to reduce the amount of FOG contributed to the sewer system.
B. B. Renderable fats, oils, and grease shall not be disposed of, in any sewer or FOG Interceptor. All renderable fats, oils, and grease shall be stored in a separate, covered, leak-proof, Renderable FOG Container, stored out of reach of vermin, and collected by a renderer.

C. Small quantities of FOG scraped or removed from pots, pans, dishes and utensils shall be directed to the municipal solid waste stream for disposal

Section 9. FOG Program Inspection

A. Inspection Procedure

a. All class III and IV Food Preparation Establishments (FPE) shall be inspected on an annual basis. The FPEs will further be prioritized based on the following factors:

a. FPE proximity to a section of the public sewer system susceptible to FOG blockages (i.e. hot spots) will be inspected twice annually

b. Previous compliance history of the FPE. FPEs not in compliance will be inspected monthly until they are in compliance. Once in compliance the FPE will be inspected twice annually for the next two years.

b. During a routine inspection, a Derby WPCA Operator verifies that all required kitchen fixtures are served by a FOG Pretreatment System, that the FOG Pretreatment System is adequately sized and is in operating condition and that the FPEs are implementing Best Management Practices as required in their permit. Ask to see the Grease Trap Cleaning and Disposal Log. If they do not maintain a log of events, then provide them with a copy of the log and remind them they are required to keep records of cleaning and disposal. Onsite all information will be entered in the FOG inspection sheet by the Derby WPCA Operator and entered in the FOG Database at the end of the day. The data is then used to generate enforcement actions (as appropriate).

c. In addition to routine inspections FPEs may be inspected as a result of a complaint, basement backup or SSO.

B. Penalties and Enforcement

a. Noncompliance – Notices of Violation are issued in response to an observed violation of the CT DEEP General Permit for the Discharge of Wastewater Associated with Food Preparation Establishments (FOG Permit). The notice will describe the permit violation and requirements for corrective measures. Additionally, fees will be assessed in increasing increments for each additional (monthly) inspection the violation is not corrected. The first violation will have no fee associated with it. Each additional violation will be $75, $100, $150 and $250, respectively. If an establishment continues to violate the FOG Permit Valley Health will be notified in writing to hold the licence renewal for the establishment.