



STAMFORDWPCA
Office of Regulatory Compliance
Building Permit Requirements
FSE/Facility FOG

Section 1. Introduction

Food Service Establishments (FSE) and/or other Facilities where there is potential for Fats, Oils, and Grease (FOG) to discharge into the sanitary sewer are obliged to comply with *Stamford's Fats, Oils, and Grease (FOG) Abatement Program* administered by the Stamford Water Pollution Control Authority. Facilities include but are not limited to restaurants, office cafeterias, church kitchens, community barbeque stations and kitchens, etc. As part of the compliance requirements, the FSE or facility shall be equipped with adequately sized, properly functioning, and SWPCA approved grease management equipment. In addition, all of the correct kitchen equipment, fixtures, and/or drains shall discharge into the grease management equipment (GME). Compliance shall be achieved even if the kitchen is not part of the scope of work in the permit application.

Described herein are guidelines for the design of GME and the submittal requirements for a building permit involving a new FSE or modifications to an existing FSE. In addition, no less than 30 days prior to the Certificate of Occupancy (CO) or Temporary Certificate of Occupancy (TCO), the owner/operator(s) of the food service establishment or other facility shall submit to SWPCA for review and approval, a Registration Application and FOG Abatement Plan. Approval of the FOG Abatement Plan must be obtained prior to the CO or TCO, and the FOG Abatement Plan shall be implemented when the kitchen is open for use. Please contact SWPCA at 203-977-4997 or visit our website at <https://www.stamfordct.gov/government/operations/water-pollution-control-authority/fats-oils-and-grease-fog-abatement-program> to obtain the documents and forms necessary for completing the above. The Registration Application and FOG Abatement Plan should not be completed until after SWPCA plan review process has been finalized and approval has been obtained.

Section 2. Grease Management Equipment

There are 3 types of approved grease management equipment, the Outdoor In-ground Chamber, the Active Grease Recovery Unit (AGRU), and the Super Capacity Grease Interceptor (SCGI). It is highly recommended the maintenance requirements are taken into consideration when choosing which type to install. Sharing the same GME among separate FSE's and/or Facilities is prohibited. (Rev.1)

A. Outdoor In-ground Chamber

Outdoor In-ground Chambers are typically constructed of concrete and can be single or two compartment. The minimum capacity for a chamber is 1000 gallons. The exterior of the chamber shall be waterproof and the inlet and outlet T-pipes shall extend to within 12" from the bottom of the chamber. The chamber shall also be equipped with a high efficient grease outlet filter. The chamber setback to the footprint of any building is 10'. For additional compliance requirements refer to Section 5(b)(1)(B thru M) of the State of CT DEEP General Permit for the Discharge of Wastewater Associated with Food Service Establishments. It is preferred chambers are installed in series if more than one is required. The amount of FOG and solids in the chamber must be routinely monitored using a sludge judge or similar device. The measured amounts shall be recorded on log sheets and kept on site. At no time shall the combined FOG and solids reach or exceed 25% of the total capacity of the chamber. The contents in the chamber shall be completely pumped out no less than once every 3 months by an outside contractor for proper disposal. Sizing the outdoor in-ground chamber is based on meals served and hours of operation utilizing the Uniform Plumbing Code Formula Grease Interceptor Sizing Worksheet.

Take-out meals and catering are to be factored in the formula. In the formula a single service kitchen is limited to pre-packaged food only, with no food preparation or cooking.

B. Active Grease Recovery Unit (AGRU)

AGRU's require electricity and run on a timer. The FOG on the wastewater is skimmed by a wheel and sent to a collection jug attached to the outside of the unit. With larger units, the FOG is skimmed and sent to a collection barrel. AGRU's equipped with the Automatic Solids Transfer feature are not permitted. There are ongoing maintenance requirements for AGRU's. On a daily basis, the amount of FOG in the collection jug must be measured, recorded, and deposited in a storage barrel labeled and designated for Non-renderable FOG. The internal food strainer must be removed daily and the contents emptied in the trash. The skimming blades on the wheel should be checked for grease built up and wiped clean when needed. In addition, it is required that an outside contractor pump out the unit no less than once every 3 months and inspect the AGRU to ensure it is functioning properly. Typically at that time, the contractor will pump out the contents of the non-renderable storage barrel for proper disposal. This type of GME should not be buried below floor grade. Sizing the AGRU is based on the GPM of the kitchen equipment discharging into it using a 2 minute drain time.

C. Super Capacity Grease Interceptors (SCGI)

SCGI's are passive grease interceptors which are 3rd party certified to hold 4 times the amount of FOG in pounds than the established GPM. Depending on the make and model number, SCGI's can be used in a variety of applications such as outdoor in-ground and indoor above or below floor grade. Clarification should be obtained from the manufacturer if the correct model is utilized for the proposed installation. Identical units shall be installed parallel with a flow splitter and not in series. For outdoor installations, SCGI's must be installed below the frost line. SCGI's with a volume of 250 gallons or less shall be located at least 5' from the footprint of any building, and if the volume in the unit is greater than 250 gallons a 10' setback is required. The amount of FOG and solids in the units must be routinely monitored using a sludge judge or similar device. The measured amounts shall be recorded on log sheets and kept on site. At no time shall the depth of the FOG or the height of the solids in the units reach or exceed the maximum amounts specified by the manufacturer. The location of the SCGI must allow for sufficient clearance above the unit to perform this maintenance requirement.^(Rev.1) Typically, with properly sized SCGI's, the pump-out requirements are approximately every 2 to 3 months.

Section 3. Kitchen Equipment, Fixtures, Drains

A. Separate sanitary and grease waste lines are required for the discharge of kitchen wastewater. Food Pulpers, garbage disposals/grinders are prohibited. Listed below are some but not all of the kitchen equipment, fixtures, and/or drains that should discharge into grease management equipment:

- | | |
|-------------------------------|---|
| Three Compartment Sinks | Two Compartment Sinks |
| Single Compartment Prep Sinks | Pre-Rinse Sinks (Soiled Dish Table) |
| Dump Sinks | Kitchen/Ware Washing Area Floor Drains* |
| Soup Kettles/Braising Pans | Pollution Control Units |
| Mop Sinks* | Self-Cleaning Exhaust Hoods |
| Wok Stations | Combi-Ovens** |

*With the lack of fryolators, limited menus, and low grease production, SWPCA may grant a waiver to allow the wastewater from kitchen/ware washing floor drains and mop sinks to discharge into the sanitary without treatment from grease management equipment. The request for a waiver shall be put in writing with justification as to why the waiver should be granted. A copy of the menu must be attached.

**Combi-Ovens must be equipped with a tempering valve. A notation shall be included on the food service and plumbing plans.

Unless a waiver by SWPCA has been granted, floor sinks and/or drains scheduled for sanitary discharge shall be slightly raised to prevent the infiltration of mop water. A notation shall be included in the plumbing plans indicating the sanitary floor sinks/drains are to be slightly raised.

B. Listed below are some but not all of the kitchen equipment, fixtures, and/or drains that should NOT discharge into grease management equipment:

Ice Machines	Refrigeration Condensate
Dishwashers	Hot/Cold Holding Units
Water Heater Overflow/Relief Valves	Salad Dryers
Hand Sinks	Coffee/Esspresso Machines

Section 4. Plans (required)

For outdoor installations, the information on the proposed GME shall be on a Site Utility Plan and Details Plan prepared by a professional civil engineer registered in the State of CT. For indoor installations, the information on the proposed GME shall be on the plumbing plans. The information below provides a minimal overview of the plans and documents required when submitting to SWPCA for review. The information on the site, architectural, food service, and plumbing plans, as well as the information on the cut sheets and specification sheets must all match. Full size hard copies of the plans and documents are required. Full size hard copies of any and all revisions to the plans shall be submitted for additional review. Revisions shall be highlighted on the plans. Please deliver to 111 Harborview Avenue (Building 11). As part of the CO process, as-built record drawings and design engineer certification are required.

A. Site Plans (Exterior GME Installation)

1. Type, size, and location of proposed GME.
2. Existing and proposed grade elevations.
3. GME invert elevations.
4. Elevation of maximum ground water.
5. Cross Section/Detail of GME w/pertinent installation requirements.

For outdoor chambers: (Grease Outlet Filter, T-Pipes, Waterproofing, Manhole Covers, etc.)

The cross section should show all requirements have been met which are listed in Section 5 of the CT DEEP General Permit. The high water table in relation to the bottom of the GME needs to be taken into consideration.

For SCGI's: Ensure all aspects of the manufacturer's installation instructions, requirements, and recommendations are shown on the cross section. SCGI's shall be installed below the frost line. A high water table in relation may warrant additional installation requirements.

6. Outdoor Chambers: Add the following language to the site plans: "The chamber shall be installed in accordance with all applicable codes and shall meet the requirements set forth in Section 5(b)(1)(B thru M) of the State of CT DEEP General Permit for the Discharge of Wastewater Associated with Food Service Establishments. Prior to backfilling, all necessary inspections and approvals shall be obtained (i.e. Building Dept., SWPCA, Design Engineer). No less than 3 working days in advance, please contact SWPCA at 203-977-4997 or 203-977-4134 to schedule an installation inspection."
7. SCGI's: Add the following language to the site plans: "The grease management equipment shall be installed in accordance with all applicable codes, and shall be installed with strict adherence to the

manufacturer's installation instructions, requirements, and recommendations. Prior to backfilling, all necessary inspections and approvals shall be obtained (i.e. Building Dept., SWPCA, and the Design Engineer). No less than 3 working days in advance, please contact SWPCA at 203-977-4997 or 203-977-4134 to schedule an installation inspection.

B. Architectural/Food Service Plans

1. A complete set of the architectural and food service plans.
2. The plans shall include a chart containing an itemized list of all the food service/kitchen equipment. Indicate if the item is existing or proposed, provide the manufacturer and model number, sink bowl dimensions (if applicable), indicate if the item requires hot/cold water, direct/indirect discharge, and electric or gas supply. In the remarks column, indicate if the item is piped to grease waste.
3. Floor plan showing all of the existing and proposed food service/kitchen equipment clearly labeled with the corresponding item number.

C. MEP Plans

1. A complete set of MEP plans.
2. A MEP chart with a complete itemized list of the food service/kitchen equipment. The item numbers shall match those listed in the architectural/food service plans. Indicate, if the item is existing or proposed, provide the manufacturer and model number, sink bowl dimensions (if applicable), indicate the hot/cold water, direct/indirect discharge, and electric or gas supply requirements for each item. In the remarks column, indicate if the item is piped to grease waste.
3. Floor plan showing floor sinks, floor drains, the grease and sanitary waste lines. The plan shall clearly identify which equipment discharge into the sanitary and which equipment discharge into the grease waste. Include the equipment item numbers. (See Illustration 1).
4. Sanitary and grease waste riser diagrams showing all floor sinks and floor drains. Identify all the equipment by item number scheduled to discharge into each floor sink and/or drain. (See Illustration 2).
5. Sizing calculation chart for the proposed grease management equipment. For outdoor chambers utilize the Uniform Plumbing Code Formula Grease Interceptor Sizing Worksheet. For AGRU's and SCGI's, calculate the GPM for each equipment and include the items numbers. Provide separate sizing charts for separate GME.
6. For AGRU's and SCGI's on/or above the floor, add the following language to the plumbing plans: "The grease management equipment shall be installed in accordance with all applicable codes, and shall be installed with strict adherence to the manufacturer's installation instructions, requirements, and recommendations." Please note: SWPCA does not approve suspending grease management equipment. In the event it has been demonstrated there is no other alternative, an exception may be granted. However, the design for the support system shall be prepared and submitted by a CT Licensed Structural Engineer. The P.E. shall certify in writing the proposed support system is more than adequate to hold the maximum load of the GME. In addition, the area below the suspended GME including a safety buffer shall be permanently barricaded from vehicular and pedestrian trafficking.
7. For SCGI's below floor/buried installations, provide a Cross Section/Detail of GME with pertinent installation requirements. Ensure all aspects of the manufacturer's installation instructions, requirements, and recommendations are shown on the cross section. Add the following language: "The grease management equipment shall be installed in accordance with all applicable codes, and shall be installed with strict adherence to the manufacturer's installation instructions, requirements,

and recommendations. Prior to backfilling, all necessary inspections and approvals shall be obtained (i.e. Building Dept., SWPCA, and the Design Engineer). No less than 3 working days in advance, please contact SWPCA at 203-977-4997 or 203-977-4134 to schedule an installation inspection.

8. Detailed information on the exhaust hoods (existing and proposed). Verify if self-cleaning.

Illustration 1 (Floor Plan)

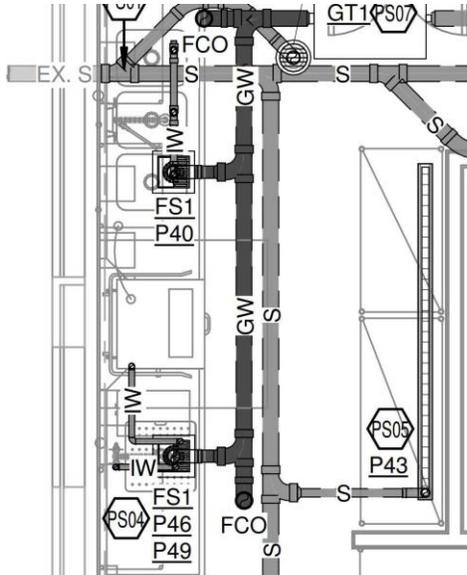
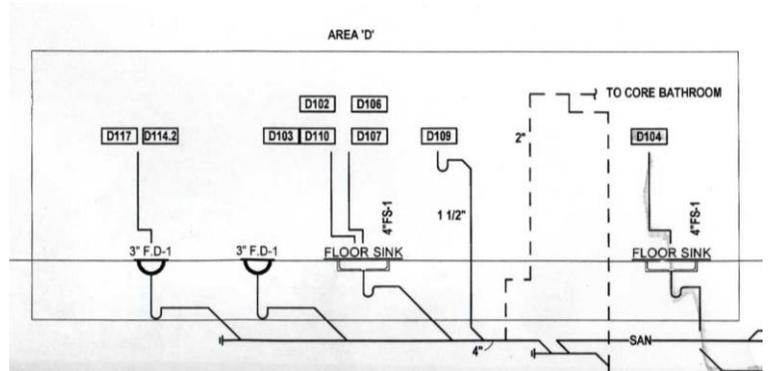


Illustration 2 (Riser Diagram)



Section 5. Documents (required)

- A. Copies of all of the manufacturer equipment cut sheets in numerical order with the item numbers listed on the cut sheets. Be sure the cut sheets provide the model number and other pertinent information such as sink bowl dimensions, GPM discharges, etc.
- B. Copies of the manufacturer specifications sheets on the proposed grease management equipment.
- C. For AGRU's and SCGI's, copies of the manufacturer installation instructions and owner's manual on the proposed grease management equipment.

SWPCA strongly advises against installing GME prior to the fit out of the FSE or Facility. In the event the owner(s) and/or developer opts to install GME in advance it is solely at their own risk. Should it be determined the GME is undersized at the time of the building permit application for the FSE or Facility, the GME shall be removed and replaced with adequately sized equipment or additional GME will be required.

PLEASE COMPLETE THE CHECKLIST PROVIDED BELOW AND SUBMIT WITH THE PLANS AND DOCUMENTS FOR REVIEW. Incomplete submissions will be rejected.



Office of Regulatory Compliance
Food Service/Facility Plan Review Checklist

Building Permit Application Number: _____ Date: _____

Address: _____

Name of Facility: _____

Applicant Name: _____

Phone: _____ Email: _____

Owner(s) Name: _____

Phone: _____ Email: _____

Yes	N/A	Section (see above)	Description
<input type="checkbox"/>		Section 2.	Adequately sized approved GME.
<input type="checkbox"/>		Section 3.A.	Correct kitchen equipment, fixtures, and/or drains discharge into GME.
<input type="checkbox"/>		Section 3.B.	Correct kitchen equipment, fixtures, and/or drains discharge into sanitary.
<input type="checkbox"/>		Section 4.	Information on the plans and documents match.
<input type="checkbox"/>	<input type="checkbox"/>	Section 4.A.	Site plans (Exterior GME).
<input type="checkbox"/>	<input type="checkbox"/>	Section 4.A.1.	Type, size, and location of proposed GME.
<input type="checkbox"/>	<input type="checkbox"/>	Section 4.A.2.-4.	Grade, GME invert, maximum ground water elevations.
<input type="checkbox"/>	<input type="checkbox"/>	Section 4.A.5.	Cross section/detail.
<input type="checkbox"/>	<input type="checkbox"/>	Section 4.A.6.-7.	Installation language added to plans.
<input type="checkbox"/>		Section 4.B.1.	Complete set of the architectural and food service plans. Latest revision date: ____ / ____ / ____
<input type="checkbox"/>		Section 4.B.2.-3.	Equipment schedule and floor plan.
<input type="checkbox"/>		Section 4.C.1	Complete set of MEP plans. Latest revision date: ____ / ____ / ____

BP Appl. #: _____

Date: _____

<input type="checkbox"/>		Section 4.C.2.	MEP Equipment Chart.
<input type="checkbox"/>		Section 4.C.3.	MEP Floor Plan w/ sanitary, grease waste, and equipment item numbers.
<input type="checkbox"/>		Section 4.C.4.	Sanitary and grease waste riser diagrams w/ item numbers.
<input type="checkbox"/>		Section 4.C.5.	GME sizing calculation chart.
<input type="checkbox"/>	<input type="checkbox"/>	Section 4.C.6.	Language for AGRU/SCGI installed on or above floor grade.
<input type="checkbox"/>	<input type="checkbox"/>	Section 4.C.7.	Cross section and language for SCGI installed below floor grade.
<input type="checkbox"/>	<input type="checkbox"/>	Section 4.C.8.	Information on exhaust hoods.
<input type="checkbox"/>		Section 5.A.	Manufacturer equipment cut sheets.
<input type="checkbox"/>		Section 5.B.	GME manufacturer specification sheets.
<input type="checkbox"/>	<input type="checkbox"/>	Section 5.C.	AGRU/SCGI installation instructions/owner's manual.

Prepared by: _____ Date: _____
(Print Name)

(Signature)

Company Name: _____

Phone: _____ E-mail: _____