

DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU
DIVISION OF ENVIRONMENTAL QUALITY
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ERC 10-234

**POLICY FOR
INDUSTRIAL WASTEWATER DISCHARGE PERMIT
GREASE INTERCEPTOR PROJECT REVIEW**

September 2010

When upgrading a facility to comply with the Rules Relating to Grease Interceptor Program Compliance, all plumbing fixtures that potentially discharge fats, oils and grease (FOG) must be connected to a grease interceptor (GI), sized in accordance with the current GI sizing criteria, and GIs must be accessible for maintenance, inspection and sampling.

To expedite the Industrial Wastewater Discharge Permit (IWDP) grease interceptor project review process, include the following with your submittal:

1. INDUSTRIAL WASTEWATER DISCHARGE PERMIT (IWDP):

Be sure you have obtained and reviewed the most current City application forms, policies and guidelines. Read the IWDP application carefully and provide all information requested including attachments. The (original) signature of the permittee is required.

2. Drainage fixtures Unit Calculation (DFU):

- a. Connect all fixtures/equipment to the GI that are **POTENTIAL** FOG sources.
- b. Provide Drainage Fixture Unit (DFU) information (*Refer to Table 1*) which identifies the following: 1) Fixture Type, 2) Trap Size, 3) Total Number of each fixture type, 4) DFU Value, 5) Total DFU Value.
- c. If using UPC Table 7-4 (intermittent flow such as condensation) to determine drainage fixture unit value, substantiate the lower DFU values by providing flow rates.

(Table 1) SAMPLE DRAINAGE FIXTURE UNIT TABLE

Fixture	Hard Connected	DFU Subtotal	Trap Size/Flow
3-Compartment Sink	1	4 x 1 = 4	2"
Commercial Food-Waste Grinder	1	3 x 1 = 3	2"
Dishwasher	1	6 x 1 = 6	3"
Floor Drain	6	0 x 6 = 0	2"
Floor Sink	4	4 x 4 = 16	2"
Floor Sink 2" (Hand Sink)	2	1 x 2 = 2	5.1 GPM
Mop Basin/Mop Sink	1	3 x 1 = 3	3"

Total DFUs 34

- d. For multi-tenant projects discharging to a common device, provide a breakdown of the fixtures and minimum required DFU's by each tenant space. Calculate the total DFU count for all tenants when determining the GI size instead of sizing each tenant separately.

3. Grease Interceptor Sizing:

- a. To determine the minimum required size, refer to "Rules Relating to Grease Interceptor Program Compliance", Grease Interceptor Sizing Criteria. Use the following formula:

$$V(\text{min}) = F \times R \times S$$

V(min) = Minimum Grease Interceptor Operating Volume, gallons
 F = Flow Rate (maximum), gallons per minute
 R = Retention Time = 30 minutes
 S = Storage Factor = 25 percent

Sample Flow Calculation for Table 1 (above)

$$DFU \leq 40: ((DFU) \underline{34} \times 0.7) = (F) \underline{23.8}$$

GI Size Calculation

$$\text{Minimum Liquid Volume Capacity: } (F) \underline{23.8} \times (R)30 \times (S)1.25 = (V) \underline{892.5}$$

Minimum GI Size Required

893 Gallons

- b. Provide the make and model number of the GI proposed for installation. GIs must be listed with the International Association of Plumbing & Mechanical Officials (IAPMO) and follow the Uniform Plumbing Code (UPC) design Standards. A Structural Engineer's stamp on the DFU Table/GI Specification may otherwise be required.
- c. Projects are approved based on the information submitted. **Any subsequent changes (e.g. GI relocation, switching GI models, etc.) must be resubmitted for review and approval by the City's Department of Environmental Services.**

4. Policy for GI Accessibility:

For a Grease Interceptor (GI) to comply with Revised Ordinances of Honolulu Chapter 14 and the Rules Relating to Grease Interceptor Program Compliance:

"The Grease Interceptor shall be installed such that it is easily accessible for inspection, cleaning and the removal of FOG and solid material in accordance with the current City and County of Honolulu Rules and Regulations."

This is to insure the GI will be easy to clean and inspect. There must be a headspace above the GI equal to the depth of the unit. This is necessary for the Wastewater Service Investigator (WWSI) to take a core sample from within the Grease Interceptor and to determine pumping frequency. The overall depth of the GI (from the GI floor to the finished grade) should not exceed 8 feet, which is the maximum length of the tube used to extract core samples. The GI interior parts must be visible from above, so that they may be maintained and function properly.

A GI located in a parking stall will be considered inaccessible if a vehicle is parked above it. The stall should be designated as a loading zone or assigned to staff to allow the grease pumper or WWSI immediate access upon request.

For above grade units, lightweight aluminum or fiberglass manhole lids are preferred to traffic rated steel manhole covers. Acceptable non-traffic rated lids are the Orenco Model FL24G-4B, Sim/Tech Filter STF-APC24 or City & County of Honolulu Department of Environmental Services approved equal. Final design and assembly details for each lightweight lid installation must be approved as part of the Industrial Wastewater Discharge Permit application. If the lid requires tools to open, it is the responsibility of the business owner to keep the tools on-site, and to have their staff open the GI upon request by the WWSI.

For above grade GIs, the top of the interceptor is considered a raised working surface. Both the grease pumper and WWSI must work there safely. The permit holder shall be responsible for complying with OSHA and HIOSH regulations for safety, which may require the addition of safety features like railings.

Should a pumper or WWSI need to climb more than 2 feet off the ground to do their job, the permit holder must provide an OSHA compliant means of access, (i.e. stairs or stepladder). It must allow the WWSI or pumper to safely do their job. The permit holder is required to keep the stairs or ladder in good working condition and make them available upon request.

Failure to abide by these terms is considered a violation of GI accessibility requirement and will result in a failed inspection. The permit holder would be required to remedy the violation. Failure to comply may subject you to additional penalties and measures provided by City, State and Federal Laws. Possible penalties may include, but are not limited to, the following: permit suspension or revocation, termination of service and an administrative or civil penalty of not less than \$1,000.00 per violation per day.

5. CERTIFICATION STATEMENTS:

Submit the Certification Statements that replaces the review of isometric and plumbing floor plans. (Attachment 1)

SUMMARY

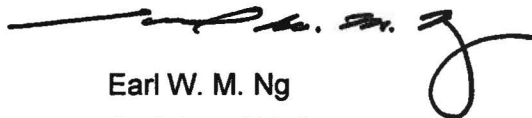
The following must be submitted with your proposal to install a grease interceptor:

1. Industrial Wastewater Discharge Permit Application
2. Drainage fixture unit table (Table 1)
3. Grease Interceptor manufacture and model number
4. Grease Interceptor Sizing Calculations
5. Signed Certification Statements (Attachment 1)

After the grease interceptor has been purchased:

1. Provide a copy of the purchase receipt (Attachment 2). Include the business/project name and address where the grease interceptor(s) is to be installed.
2. Contact the City to provide the installation date and when operations will resume.

For more information, go to our website at www.honolulu.gov/env/rc or call (808) 768-3262.



Earl W. M. Ng
Assistant Chief



GREASE INTERCEPTOR PROJECT REVIEW CERTIFICATION STATEMENTS

Project Name: _____

Project Street Address: _____ Unit # _____

City: _____, Hawaii, Zip Code: _____

To Be Signed by Owner's/Permittee's Authorized Representative (e.g. Mechanical or Project Engineer)

"I certify under penalty of law that I have read, understand and complied with all current applicable City & County, Department of Environmental Services (ENV) rules, regulations, ordinances and policies in designing and preparing the plans and specifications associated with this grease interceptor permitting project. (e.g. Rules Relating to Grease Interceptor Program Compliance)."

Authorized Representative's (Original) Signature

Date

Print Name

Phone Number

To Be Signed by Business Owner

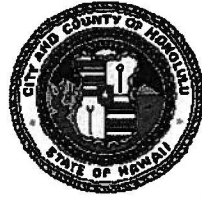
"I hereby acknowledge and understand that I will be held fully liable for any and all noncompliances that result from errors, omissions and/or actions taken by my authorized representatives and/or contractors during the design and construction process of this grease interceptor project and will make revisions necessary at any time to bring the project into compliance in accordance with the approved building permit."

Business Owner's (Original) Signature

Date

Print Name

Phone Number



MANDATORY GREASE INTERCEPTOR PROJECT CHECKLIST

YOU MUST SUBMIT a copy of the grease interceptor purchase receipt to the City & County. The receipt should indicate the manufacturer, model number, and the liquid operating capacity of the unit. Include the business/project name and the address where the grease interceptor is to be installed.

FAX this to #768-3289 (Attention: Steven Lum)

Or

Submittal Date
(For your records)

Mail this to: Attention: Steven Lum
City & County of Honolulu
Department of Environmental Services
1000 Uluohia Street, #303
Kapolei, HI 96707

YOU MUST CONTACT the City & County and provide the date when the grease interceptor will be installed **AND** when you will start or resume your operations/discharge.

Call Milton Iha at phone number 768-3264

Notification Date
(For your records)

NOTE:

Proposals to install grease interceptors are approved based in the information provided. Any subsequent changes must be resubmitted for review and approval by the City's Department of Environmental Services. Examples of these changes to the original proposal include but are not limited to relocating the grease interceptor, changing the make, model number or size of the grease interceptor, changing/adding more plumbing fixtures to the original proposal, etc.