CHAPTER 2
RULES RELATING TO
GREASE INTERCEPTOR PROGRAM COMPLIANCE
JANUARY 2002

ADOPTION OF
Rules of the Division of Environmental Quality for
Grease Interceptor Program Compliance

MAR 05 2002 (Adoption Date)

SUMMARY
Rules of the Division of Environmental Quality for
Grease Interceptor Program Compliance is adopted.
CHAPTER 2, RULES RELATING TO GREASE INTERCEPTOR PROGRAM COMPLIANCE

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CHAPTER 2
RULES RELATING TO GREASE INTERCEPTOR PROGRAM COMPLIANCE

§02-01 PURPOSE AND GENERAL PROVISIONS

§02-01-01 Statement of Policy. In accordance with Title 40, Code of Federal Regulations (40 CFR), Part 403 and Chapter 14, Revised Ordinances of Honolulu (ROH) 1990 as amended, the City and County of Honolulu Department of Environmental Service's Division of Environmental Quality has the responsibility of determining the compliance status of commercial kitchens, restaurants, food processing facilities and all other establishments where Fats, Oil and Grease (FOG) of vegetable or animal origin are discharged directly or indirectly into the City's wastewater collection system. These discharges can contribute to line blockages and/or spills.

These rules reflect the most recent requirements of the City and County, State and Federal government, most notably Chapter 14, Articles 1 through 10, ROH, as amended, and the City National Pollutant Discharge Elimination System (NPDES) permits. The purpose of these rules is to set forth uniform requirements for users of the city's wastewater collection and treatment system to enable the City to comply with all applicable State and Federal laws required by the Federal Water Pollution Control Act, as amended, and by requiring industrial users to comply with the General Pretreatment Regulations in 40 CFR Part 403, as amended.

[Eff: MAY 24 2009] [Auth: ROH 14-1.9, HRS Section 342D-19] (Imp: ROH 14-1.9, HRS Section 342D-19)

§02-01-02 Applicability. These rules shall apply to all persons/users which may discharge any pollutant/indirect discharge into any public sewer or any private sewer that is connected to a public sewer. Sections 14-5.12(a) and (b) of the ROH states that the Director may require an industrial wastewater pretreatment system or device to treat commercial/industrial wastewater prior to discharge in the sewer system. Furthermore, all pretreatment systems or devices shall be approved by the Director.

All pretreatment devices shall be designed, sized, constructed, installed and maintained such that they comply with: A) All applicable Federal, State and/or City discharge limits; B) All department policies and rules, as amended.

[Eff: MAY 24 2009] [Auth: ROH 14-1.9, HRS Section 342D-19] (Imp: ROH 14-1.9, HRS Section 342D-19)

§02-01-03 Operation and Maintenance of Pretreatment Devices. All pretreatment devices shall be maintained in efficient operation at all times by the owner at the owner's expense. The maintenance frequency shall be determined by the Director or based on department policies or rules, as amended. In cases where there are no department policies or rules, the maintenance frequency for the pretreatment device shall be established by the device manufacturer's recommendation.
In maintaining these pretreatment devices, the owner shall be responsible for the proper removal and disposal, by appropriate means, of the captured material and shall maintain records of the dates, amounts and means of disposal, all of which are subject to the review of the Director.

[Eff: ] [Auth: ROH 14-1.9] (Imp: ROH 14-1.9)

MAY 2 4 2003.

§02-01-04 Premises of Industrial Users. Upon showing proper credentials, person authorized by the Director shall have the right to enter the industrial user's premises during scheduled, unscheduled, announced or unannounced inspections. Such authorized persons shall have access to any facilities and records necessary for determining compliance, inspect the process areas of an industrial user, visual observation of the pretreatment and monitoring facilities, and review the measures undertaken by the industrial users to minimize risks for any discharges that would violate any limitations and specific prohibitions.

[Eff: ] [Auth: ROH 14-1.10] (Imp: ROH 14-1.10)

MAY 2 4 2003.

§02-01-05 Authorized Personnel. The City Department of Environmental Services' Division of Environmental Quality has the responsibility of determining the compliance status of commercial kitchens, restaurants, food processing facilities and all other establishments where fats, oil and grease (FOG) of vegetable or animal origin are discharged directly or indirectly into the City's wastewater collection system. The Division employs designated personnel who are authorized representatives of the Director, and whose primary duties are in the inspection of pretreatment devices.

[Eff: ] [Auth: ROH 14-1.9, ROH 14-1.10] (Imp: ROH 14-1.9, ROH 14-1.10)

MAY 2 4 2003.

§02-01-06 Authority. Administration of public sewer as well as these rules are the responsibility of the Department of Environmental Services. The Director of the Department of Environmental Services shall be the final authority in administering and interpreting these rules.

[Eff: ] [Auth: ROH 14-1.3] (Imp: ROH 14-1.3)

MAY 2 4 2003.

§02-02 STANDARD COMPLIANCE REQUIREMENTS

§02-02-01 Grease Interceptor Design Criteria. All industrial waste streams containing FOG within restaurants, commercial kitchens or other FOG generating facilities shall be directed into an appropriately sized grease interceptor (GI). Grease interceptors shall be designed, constructed and installed in accordance with the ROH and the Uniform Plumbing Code (UPC) standards [with the exception of Appendix H Parts H 102.2 and H 106.0] and sized in accordance with these rules. A sampling port/box which will accommodate the collection of valid Oil and Grease samples shall be included on all GI installations. §02-07-01 Attachment 1 depicts typical GI designs.

[Eff: ] [Auth: ROH 14-1.9] (Imp: ROH 14-1.9)

MAY 2 4 2003.
§02-02-02 Grease Interceptor Installation. Grease interceptor shall be installed such that they are easily accessible for inspection, cleaning and the removal of FOG and solid material. An accessible grease interceptor shall meet the following minimum criteria: the edge of the grease interceptor shall be flush with any edge of an overhead obstruction; and the overhead clearance shall be at least equal to the overall depth of the grease interceptor. GI access covers should be located such that the influent and effluent sanitary “T” and compartment transition points (if applicable) are accessible for proper cleaning and inspection.

[Eff: ] [Auth: ROH 14-1.9] (Imp: ROH 14-1.9)
MAY 2 4 2009

§02-02-03 Grease Interceptor Sizing. Grease interceptor shall be sized in accordance with the City grease interceptor sizing criteria provided in Attachment 2 of these rules in §02-07-02 as applicable.

[Eff: ] [Auth: ROH 14-1.9] (Imp: ROH 14-1.9)
MAY 2 4 2009

§02-02-04 Fats, Oil and Grease Sources. All fixtures, equipment and drain lines located in a facility’s food preparation and clean up areas, which are sources of FOG, shall be connected to a grease interceptor. Dishwashers or other fixtures discharging emulsifying agents, such as detergents, should be located such that their potential to adversely impact the grease interceptor operation is minimized. Attachment 3 of these rules in §02-07-03 depicts an example schematic of a well-designed commercial kitchen and clean-up area.

The following types of equipment or fixtures have been identified as potential sources of FOG and shall be connected to a grease interceptor: pre-rinse and or pre-wash sinks or sinks in dishwashing areas; two or three compartment sinks; wok stoves; self cleaning stove ventilation/exhaust hood; kitchen floor drains; floor drains; floor sinks; mop sinks; food prep sinks; and hand sinks.

The City requires that all drain lines have permanently fixed screens with a maximum ¼- inch openings, to prevent the pass-through of larger solids into the grease interceptor and/or wastewater collection system.

[Eff: ] [Auth: ROH 14-1.9] (Imp: ROH 14-1.9)
MAY 2 4 2009

§02-02-05 Record Keeping. All grease interceptor maintenance and compliance records and correspondence must be retained on-site by the permitted facility for a minimum of three (3) years. A separate maintenance log shall be maintained for each grease interceptor and posted in the immediate vicinity of each device. Grease interceptor maintenance logs shall include the following information: grease interceptor location and volume; maintenance dates; volume removed in gallons; name of company and person(s) performing maintenance; and disposal methods (i.e. the name of the State Permitted facility where the wastewater was discharged if transported off of the property). Attachment 4 in §02-07-04 of these rules depicts a Grease Interceptor Maintenance Log.

Records associated with waste cooking oil collection and disposal shall also be retained on-site by the permitted facility for a minimum of three (3) years.
Cooking oil collection logs shall include the following information: Collection Date; Volume Collected in gallons; Name of company and person(s) performing collection; and disposal methods. Attachment 5 in §02-07-05 of these rules provides a Cooking Oil Collection Log.

§02-03 COMPLIANCE EVALUATIONS

§02-03-01 Facility Assessment. The owner or facility representative shall upon request by the Director’s authorized representative, open the grease interceptor(s) for the purpose of confirming that the maintenance frequency is appropriate, all necessary parts of the installation are in place, including but not limited to baffles, and influent and effluent tees, and that the device(s) is being maintained in efficient operating conditions.

§02-03-02 Grease Interceptor Maintenance Frequency. Unless otherwise approved by the Director, grease interceptors must be pumped-in-full when the total accumulation of surface FOG (including floating solids) and settled solids reaches twenty-five percent (25%) of the grease interceptor’s overall liquid depth. This criteria is referred to as the “25 Percent Rule”.

The introduction of emulsifying agents such as chemicals, solvents or enzymes either directly or indirectly into the grease interceptor, other than what is considered typical business operational practices such as dishwashing or sanitation, is strictly prohibited. Products which reduce FOG, such as bacteria, may be used in addition to the regular grease interceptor maintenance program, but shall not be a consideration in determining grease interceptor sizing or maintenance frequency. The use of such products is subject to the approval of the Director. In any case, the discharged waste shall comply with all applicable provisions of Articles 1 through 10 of Chapter 14, ROH 1990, as amended and all applicable State and Federal laws.

§02-04 GREASE INTERCEPTOR MAINTENANCE

§02-04-01 Liquid Waste Hauler Cleaning Procedures. Grease interceptor maintenance performed by liquid waste haulers consists of removing the FOG, solids and water from the grease interceptor and properly disposing of the material in accordance with all Federal, State and/or local laws.

Proper grease interceptor maintenance practices include evacuating the entire contents of the grease interceptor in the following manner: 1) Evacuate floatable FOG material; 2) Evacuate settled solids; 3) Remove and scrape baffles, baffle slots, interior grease interceptor walls and other detachable grease interceptor components; 4) Evacuate remaining FOG, solid material and water (“pump in full”); and 5) Reinstall all grease interceptor components removed during the cleaning process.
Refilling the grease interceptor with water IS NOT required. Removal of only surface FOG material (i.e. skimming) may be approved by the Director, on a case-by-case basis, for permit holders who are in full compliance with these rules and who incorporate effective, reliable solids handling programs such as solids interceptors or solids pumping. Approval requests must be submitted to the Director in writing and provide supporting documentation that an effective and reliable solids handling program is in place.

[Eff: ] [Auth: ROH 14-1.9] (Imp: ROH 14-1.9)

MAY 24 2009

§02-04-02 Grease Interceptor/Cooking Oil Self-Cleaning. Industrial users may receive approval to maintain their own grease interceptor(s), provided: 1) the GI is no more than fifty (50) gallons in liquid/operating capacity; 2) proper on-site material disposal methods are implemented (e.g. absorb liquids into solid form and dispose into trash); and 3) detailed records on these activities are maintained according to §02-02-05. Industrial users approved to perform self-cleaning on their grease interceptors and/or for cooking oil disposal must complete and submit to the Director for approval, the Grease Interceptor and/or Cooking Oil Self-Cleaner Request provided in Attachment 6 and Attachment 7 of these rules in §02-07-06 and §02-07-07, respectively. Self-cleaners must adhere to all the requirements; procedures and detailed record keeping outlined in their approved application, to ensure compliance with the City Pretreatment Program. Violations incurred by grease interceptor and/or cooking oil self-cleaners will be subject to enforcement action including fines and/or removal from the self-cleaner program.

[Eff: ] [Auth: ROH 14-1.9] (Imp: ROH 14-1.9)

MAY 24 2009

§02-05 SEVERABILITY

In the event that any provision of this chapter or the application thereof to any person or circumstance is rendered or held to be invalid, illegal, or unenforceable under the laws of the State of Hawaii or the United States of America in any respect, such invalidity, illegality, or unenforceability shall not affect the validity of this chapter as a whole, or the validity of any remaining provision of this chapter which can be given effect without the invalid, illegal or unenforceable provision or application, or any application of the provision to other persons or circumstances. To this end, the provisions of this chapter are declared to be severable.

[Eff: ] [Auth: ROH14-1.3, ROH 14-1.9] (Imp: ROH 14-1.3, ROH 14-1.9)

MAY 24 2009

§02-06 EFFECTIVE DATE

This Chapter shall take effect ten days after filing of a certified copy of this Chapter with the City Clerk of the City and County of Honolulu.

[Eff: ] [Auth: ROH 14-1.3, ROH 14-1.9] (Imp: ROH 14-1.3, ROH 14-1.9)

MAY 24 2009
§02-07 APPENDICES

§02-07-01 Attachment 1, Typical Grease Interceptor Designs.

§02-07-02 Attachment 2, Grease Interceptor Sizing Criteria.

§02-07-03 Attachment 3, Well Designed Kitchen/Cleanup Area.

§02-07-04 Attachment 4, Grease Interceptor Maintenance Log.

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§02-07-06 Attachment 6, Grease Interceptor Self Cleaner Request.

§02-07-07 Attachment 7, Waste Cooking Oil On-Site Disposal Request.
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU

Chapter 2, Rules Relating to Grease Interceptor Program Compliance, dated January 2002, were adopted on **MAR 05 2002**, following one public hearing held on Tuesday, December 11, 2001, after public notice was given in the Honolulu Advertiser on November 5, 2001 and the Midweek on November 6, 2001.

The adoption of these Rules shall take effect ten days after filing with the Office of the City Clerk, City and County of Honolulu.

TIMOTHY E. STEINBERGER P.E.
Director
Department of Environmental Services

APPROVED AS TO FORM:

Kathleen A. Kelley
Deputy Corporation Counsel

Dated: **MAY 1 3 2009**

APPROVED:

MUFI HANEMANN
Mayor
City and County of Honolulu

Dated: **MAY 1 4 2009**

FILED:

BERNICE K. N. MAU
Acting City Clerk
City and County of Honolulu
Attachment 1

TYPICAL GREASE INTERCEPTOR DESIGNS

TYPE I

Air Intake Vent
Flow Regulatory Device
Lock and Lift Ring
Interceptor Cover
Cleanout
Air Relief
Sample Port/Box
Outlet
Inlet
Solids Accumulation
Removable Baffles

TYPE II

Interceptor Cover
Min. 12" Dia. Cover
Sample Port/Box
Outlet
Inlet
Inlet Tee
FOG Accumulation
Solids Accumulation
Attachment 2

GREASE INTERCEPTOR SIZING CRITERIA

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

Where:

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

Thus:

\[ V(\text{min}) = F \times 30 \times 1.25 \]

FLOW RATE (\( F \)):

The flow rate shall be determined based on the total flow rate from all equipment and plumbing fixtures connected to the grease interceptor using one of the following equations:

1. Drainage Fixture Units (DFU) less than or equal to 40:

\[ F = (0.7 \times \text{DFU}) \]

2. Drainage Fixture Units greater than 40:

\[ F = (0.2 \times \text{DFU}) + 20 \]

Where: DFU = Drainage Fixture Units, defined by the Uniform Plumbing Code, 1997 Edition, Tables 7-3: Drainage Fixture Unit Values (Public: General Use), Section 702.0 Fixture Unit Equivalents - Maximum Trap Loading or Table 7-4: Discharge capacity in gallons per minute for intermittent flow only, as amended by the Department of Environmental Services.

RETENTION TIME:

**STORAGE FACTOR:**

A minimum of 25% storage is required for floatable fats, oil and grease and settled solids is required for grease interceptors.

**NOTE:** PROVIDING ADDITIONAL INTERCEPTOR CAPACITY CAN REDUCE A GREASE INTERCEPTORS MAINTENANCE FREQUENCY. THEREBY REDUCING THE LONG TERM MAINTENANCE COSTS AND MINIMIZING THE NUMBER OF POTENTIAL VIOLATIONS/FINES INCURRED FROM MISSED GREASE INTERCEPTOR MAINTENANCE. HOWEVER, SOLIDS ACCUMULATION AND LOW FLOWS IN A GREASE INTERCEPTOR CAN, OVER AN EXTENDED PERIOD OF TIME, PRODUCE A CORROSIVE ENVIRONMENT WHICH CAN DAMAGE THE STRUCTURAL INTEGRITY OF THE INTERCEPTOR.
<table>
<thead>
<tr>
<th>Individual Fixtures</th>
<th>Min. Size</th>
<th>Public General Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IF NOT IDENTIFIED BELOW, USE 702.0 (MAXIMUM TRAP LOADING) OR</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TABLE 7-4 (SEE NEXT PAGE)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bar Sink.</td>
<td>1-1/2&quot;</td>
<td></td>
</tr>
<tr>
<td>Bar Sink.</td>
<td>1-1/2&quot;²</td>
<td>2.0</td>
</tr>
<tr>
<td>Bathtub or Combination Bath/Shower.</td>
<td>1-1/2&quot;</td>
<td></td>
</tr>
<tr>
<td>Bidet, 1-1/4&quot; trap.</td>
<td>1-1/4&quot;</td>
<td></td>
</tr>
<tr>
<td>Clinical Sink, 3&quot; trap.</td>
<td>3&quot;</td>
<td>6.0</td>
</tr>
<tr>
<td><strong>Clothes Washer, domestic, 2&quot; standpipe</strong></td>
<td>2&quot;</td>
<td>3.0</td>
</tr>
<tr>
<td>Dental Unit, Cuspidor.</td>
<td>1-1/4&quot;</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Dishwasher, domestic, with independent drain</strong></td>
<td>1-1/2&quot;</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Drinking Fountain or Watercooler</strong></td>
<td>1-1/4&quot;</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Food-waste-grinder, commercial</strong></td>
<td>2&quot;</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Floor Drain, emergency</strong></td>
<td></td>
<td>0.0</td>
</tr>
<tr>
<td>Kitchen Sink, domestic, with one 1-1/2&quot; trap.</td>
<td>1-1/2&quot;²</td>
<td>2.0</td>
</tr>
<tr>
<td>Kitchen Sink, domestic, with food-waste-grinder.</td>
<td>1-1/2&quot;²</td>
<td>2.0</td>
</tr>
<tr>
<td>Kitchen Sink, domestic, with dishwasher.</td>
<td>1-1/2&quot;²</td>
<td>3.0</td>
</tr>
<tr>
<td>Kitchen Sink, domestic, w/grinder and dishwasher.</td>
<td>1-1/2&quot;²</td>
<td>3.0</td>
</tr>
<tr>
<td>Laundry Sink, one or two compartments.</td>
<td>1-1/2&quot;</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Laundry Sink, with discharge from clothes washer</strong></td>
<td>1-1/2&quot;²</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Lavatory, single</strong></td>
<td>1-1/4&quot;</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Lavatory in sets of two or three... Handwash Sink.</strong></td>
<td>1-1/2&quot;²</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Mobile Home, trap.</strong></td>
<td>3&quot;</td>
<td></td>
</tr>
<tr>
<td><strong>Mop Basin, 3&quot; trap.</strong></td>
<td>3&quot;</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Receptor, indirect waste, 1-1/2&quot; trap¹</strong></td>
<td>1-1/2&quot;</td>
<td></td>
</tr>
<tr>
<td><strong>Receptor, indirect waste, 2&quot; trap¹</strong></td>
<td>2&quot;</td>
<td></td>
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<tr>
<td><strong>Receptor, indirect waste, 3&quot; trap¹</strong></td>
<td>3&quot;</td>
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<tr>
<td><strong>Receptor, indirect waste, 1-1/2&quot; trap¹</strong></td>
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<td><strong>Receptor, indirect waste, 2&quot; trap¹</strong></td>
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<tr>
<td><strong>Receptor, indirect waste, 3&quot; trap¹</strong></td>
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<tr>
<td><strong>Service Sink, 2&quot; trap</strong></td>
<td>2&quot;</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Service Sink, 3&quot; trap</strong></td>
<td>3&quot;</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Service Stall, 2&quot; trap</strong></td>
<td>2&quot;</td>
<td>2.0</td>
</tr>
<tr>
<td>Showers, group, per head (continuous use).</td>
<td>2&quot;</td>
<td>5.0</td>
</tr>
<tr>
<td><strong>Sink, commercial, 1-1/2&quot; trap, with food waste</strong></td>
<td>1-1/2&quot;²</td>
<td>3.0</td>
</tr>
<tr>
<td>Sink, service, flushing rim.</td>
<td>3&quot;</td>
<td>6.0</td>
</tr>
<tr>
<td><strong>Sink, general, 1-1/2&quot; trap</strong></td>
<td>1-1/2&quot;</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Sink, general, 2&quot; trap</strong></td>
<td>2&quot;</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Sink, general, 3&quot; trap</strong></td>
<td>3&quot;</td>
<td>5.0</td>
</tr>
<tr>
<td><strong>Sink, general, 1-1/2&quot; trap</strong></td>
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<td></td>
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<tr>
<td><strong>Sink, general, 2&quot; trap</strong></td>
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<td></td>
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<tr>
<td><strong>Sink, general, 3&quot; trap</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urinal, 1.0 GPF.</td>
<td>3&quot;</td>
<td>4.0</td>
</tr>
<tr>
<td>Urinal, greater than 1.0 GPF.</td>
<td>3&quot;</td>
<td>5.0</td>
</tr>
<tr>
<td><strong>Washfountain, 1-1/2&quot; trap</strong></td>
<td>1-1/2&quot;²</td>
<td>2.0</td>
</tr>
<tr>
<td>Washfountain, 2&quot; trap.</td>
<td>2&quot;</td>
<td>3.0</td>
</tr>
<tr>
<td>Wash Sink, each set of faucets.</td>
<td>3&quot;</td>
<td>6.0</td>
</tr>
<tr>
<td><strong>Water Closet, 1.6 GPF Gravity Tank</strong></td>
<td>3&quot;</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Water Closet, 1.6 GPF Flushometer Tank</strong></td>
<td>3&quot;</td>
<td>5.0</td>
</tr>
<tr>
<td><strong>Water Closet, 1.6 GPF Flushometer Valve</strong></td>
<td>3&quot;</td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Water Closet, 3.5 GPF Gravity Tank</strong></td>
<td>3&quot;</td>
<td>6.0</td>
</tr>
<tr>
<td><strong>Water Closet, 3.5 GPF Flushometer Valve</strong></td>
<td>3&quot;</td>
<td>6.0</td>
</tr>
<tr>
<td><strong>Whirlpool Bath or Combination Bath/Shower</strong></td>
<td>2&quot;</td>
<td></td>
</tr>
</tbody>
</table>

1 Indirect waste receptors shall be sized based on the total drainage capacity of the fixtures that drain therein to, in accordance with Section 702.0 (Maximum Trap Loading) or Table 7-4 (see next page).
2 Provide a 2" (51 mm) minimum branch drain beyond the trap arm.
3 Commercial sinks, dishwashers and similar moderate or heavy demands.
4 Buildings having a clothes washing area with clothes washers in a battery of three (3) or more clothes washers shall be rated at six (6) fixture units each for purposes of sizing common horizontal and vertical drainage piping.
5 Water closets shall be computed as six (6) fixture units when determining septic tank sizes based on Appendix K of this code.
6 Trap sizes shall not be increased to the point where the fixture discharge may be inadequate to maintain their self-scouring properties.
702.0 Fixture Unit Equivalents

The unit equivalent of plumbing fixtures shown in Table 7-3 shall be based on the size of the trap required, and the unit equivalent of fixtures and devices not shown in Table 7-3 shall be based on the rated discharge capacity in gpm (gallons per minute) (liters per second) in accordance with Table 7-4.

Maximum trap loadings for sizes up to four (4) inches (102 mm) are as follows:
- 1-1/4" (32 mm) - 1 unit
- 1-1/2" (38 mm) - 3 units
- 2" (51 mm) - 4 units
- 3" (76 mm) - 6 units
- 4" (102 mm) - 8 units

Exception: On self-service laundries.

703.0 Size of Drainage Piping

703.1 The minimum sizes of vertical and/or horizontal drainage piping shall be determined from the total of all fixture units connected thereto, and additionally, in the case of vertical drainage pipes, in accordance with their length.

703.2 Table 7-5 shows the maximum number of fixture units allowed on any vertical or horizontal drainage pipe, building drain or building sewer of a given size; the maximum number of fixture units allowed on any branch interval of a given size; and the maximum length (in feet and meters) of any vertical drainage pipe of a given size.

### TABLE 7-4
Discharge Capacity In Gallons per Minute
(Liters per Second)

<table>
<thead>
<tr>
<th>GPM (l/sec.)</th>
<th>For Intermittent Flow Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 7-1/2 (Up to 0.47)</td>
<td>Equals 1 Unit</td>
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<tr>
<td>8 to 15 (0.50 to 0.95)</td>
<td>Equals 2 Units</td>
</tr>
<tr>
<td>16 to 30 (1.00 to 1.89)</td>
<td>Equals 4 Units</td>
</tr>
<tr>
<td>31 to 50 (1.95 to 3.15)</td>
<td>Equals 6 Units</td>
</tr>
</tbody>
</table>

Discharge capacity for over 50 gallons per minute (3.15 L/sec.) shall be determined by the Administrative Authority.

For a continuous flow into a drainage system, such as from a pump, sump ejector, air conditioning equipment, or similar device, two (2) fixture units shall be allowed for each gallon per minute (0.06 L/sec.) of flow.

Note: Flowrates from basin-type fixtures shall be calculated based on draining 75% of the basin total capacity in one (1) minute.

703.3 For alternate method of sizing drainage piping, see Appendix L.

704.0 Fixture Connections (Drainage)

704.1 Drainage piping shall be provided with approved inlet fittings for fixture connections, correctly located according to the size and type of fixture proposed to be connected.

704.2 Two fixtures set back-to-back, or side-by-side, within the distance allowed between a trap and its vent, may be served by a single vertical drainage pipe provided that each fixture wastes separately into an approved double fixture fitting having inlet openings at the same level.

704.3 Pot sinks, scullery sinks, dishwashing sinks, silverware sinks, dishwashing machines, silverware-washing machines, and other similar fixtures shall be connected directly to the drainage system. A floor drain shall be provided adjacent to the fixture, and the fixture shall be connected on the sewer side of the floor drain trap, provided that no other drainage line is connected between the floor drain waste connection and the fixture drain. The fixture and floor drain shall be trapped and vented as required by this Code.

704.4 Closet Rings (Closet Flanges)

704.4.1 Closet rings (closet flanges) for water closets or similar fixtures shall be of an approved type and shall be bronze, copper, hard lead, cast iron, galvanized malleable iron, ABS, PVC, or other approved materials. Each such closet ring (closet flange) shall be approximately seven (7) inches (178 mm) in diameter and, when installed, shall, together with the soil pipe, present a one and one-half (1-1/2) inch (38 mm) wide flange or face to receive the fixture gasket.

704.4.2 Cauked-on closet rings (closet flanges) shall be no less than one-fourth (1/4) inch (6.4 mm) thick and not less than two (2) inches (51 mm) in overall depth.

704.4.3 Closet rings (closet flanges) shall be burned or soldered to lead bends or stubs, shall be caulked to cast iron soil pipe, shall be solvent cemented to ABS and PVC and shall be screwed or fastened in an approved manner to other materials.

704.4.4 All such closet rings (closet flanges) shall be adequately designed and secured to support fixtures connected thereto.

704.4.5 Closet screws, bolts, washers, and similar fasteners shall be of brass, copper, or other listed, equally corrosion resistant materials. All such screws and bolts shall be of adequate size and number to properly support the fixture installed.
Attachment 3

WELL DESIGNED KITCHEN / CLEANUP AREA

- Can Wash
- Grease Interceptor
- Pan Wash
- Ice Machine
- Hand Sink
- 3 Compt. Sink
- Prewash Sink
- Dishwasher Machine
- Black Water (sewage)

- Floor Drain
- Cleanout
Attachment 4
Grease Interceptor Maintenance Log
(Each interceptor must have their own log)

Name of Permittee /Business ________________________________
Address ________________________________________________

<table>
<thead>
<tr>
<th>Phone #</th>
<th>Location of device</th>
<th>To Be Completed By Service Company</th>
<th>To Be Completed By Industrial User/Permittee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Service company and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serviced</td>
<td>name of person doing</td>
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<td></td>
<td>service and verifying</td>
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<tr>
<td></td>
<td>log information</td>
<td>Disposal Method</td>
<td>Gals removed from gi</td>
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</tbody>
</table>

To be Completed by Source Control Specialist

rev7/2/01

Frequency of Service/ Date ___________________________ Inspected by ________________________

Size of interceptor in inches ____ length X ____ width X ____ height (water level)/231 = ____ gals

City & County of Hon., Dept. of Environmental Services, Division of Environmental Quality, 650 South King St., Hon. HI 96813

16
Attachment 5

Cooking Oil Collection Log

Name of Permittee/Business ________________________________
Address ________________________________________________
Phone Number ____________________________________________

To Be Completed By Service Company

<table>
<thead>
<tr>
<th>Date Serviced</th>
<th>Service Company and Name of Individual Removing Waste</th>
<th>Total Gallons Removed</th>
<th>Disposal Method</th>
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<tbody>
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</tbody>
</table>

To be Completed by Source Control Specialist

Average gallons removed _______ every _______ month(s)

City & County of Honolulu, Dept. of Environmental Services, Div. Of Environmental Quality
650 South King Street, 3rd floor, Honolulu, Hawaii 96813
Attachment 6

GREASE INTERCEPTOR SELF-CLEANER REQUEST

1. Business Name and Street Address: ________________________________
   DBA: __________________ Street: ________________________________
   City: ________________ State: _____ Zip: _____________

2. Contact Person:
   Name: __________________ Title: ________________________________
   Telephone: ________________________________

3. The grease interceptor(s) shall be no more than 50 gallons in liquid/operating capacity.

4. The operator must commit in writing to maintain records of the servicing as well as service the grease interceptor in accordance with City approved procedures. The maintenance frequency shall be increased so that the method of disposal can reasonably accommodate the volume of material accumulated (e.g. monthly cleaning changes to weekly cleaning). The facility must ensure that all persons servicing the interceptor have been adequately trained in the City approved maintenance procedures. The self-cleaner may be required to demonstrate their self-cleaning procedure.

5. The owner/operator of the facility must submit this application for self-cleaning with the following information:
   
   Current Maintenance Frequency: ________________________________

   Proposed Maintenance Frequency: ________________________________

   Method of Disposal: ________________________________
   ________________________________
   ________________________________
   ________________________________

   Use additional sheets as required.

6. The applicant must receive written approval from the Department of Environmental Services prior to initiating self-cleaning. If approved, a copy of the application will be returned to the facility for posting with the maintenance log.

7. The facility must produce records of servicing and receipts for supplies during a Compliance inspection.
THE GREASE INTERCEPTOR MUST BE CLEANED AND THE WASTE DISPOSED OF UTILIZING THE FOLLOWING STEPS:

1. Skim the oil out, measure the quantity of wastes removed, (volume of liquid), place in absorbent material.

2. Scrape the sides of the interceptor with a putty knife or other flat bladed tool.

3. Remove the solids from the bottom of the interceptor. Measure the quantity of the removed wastes, (volume of the liquid and the solids) and place in absorbent material.

4. The oil & liquid wastes removed must be completely absorbed, bagged and disposed of in solid waste! Record the total amount of wastes removed on your log.

Failure to comply with these requirements 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 fines of up to $25,000.00 per violation per day.

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

---

Original Signature (No Copies Please) ___________________________ Date ___________________________

Printed or Typed Name and Title ___________________________ Phone Number ___________________________

For City Use Only:

Approved: ___________________________ Disapproved: ___________________________

Reviewer: ___________________________ Date: ___________________________
Attachment 7

WASTE COOKING OIL ON-SITE DISPOSAL REQUEST

1. Business Name and Street Address:
   Street: __________________________  DBA: __________________________
   City: __________________________  State: _______  Zip: _______

2. Contact Person:
   Name: __________________________  Title: __________________________
   Telephone: __________________________

The owner/operator of the facility must submit this application for waste oil disposal with the following information:

   Proposed Oil Maintenance Frequency: __________________________

   Estimated Amount of OIL to be disposed of each period: __________________________

   Method of Disposal: __________________________

The applicant must receive written approval from the Department of Environmental Services prior to initiating waste oil disposal.

   Used cooking oil may be collected for on-site disposal using the following methods.

   1. Collected and placed in sufficient absorbent material so the oil is completely absorbed by the material then enclosed in trash bags and disposed of with the refuse.

   2. Collected and placed in used waste oil disposal boxes and disposed of with the refuse.

If approved, a copy of the application will be returned to the facility for posting with the cleaning log. The facility must produce records of disposal and receipts for necessary supplies during a compliance inspection.

Failure to comply with these requirements 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 fines of up to $25,000.00 per violation per day.
Attachment 7 continued

CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

_________________________________________  _____________________________
Original Signature (No Copies Please)      Date

_________________________________________
Printed or Typed Name and Title

_________________________________________  _____________________________
Phone Number

For City Use Only:

Approved: ___________________________  Disapproved: ______________________

Reviewer: ___________________________  Date: ____________________________
CERTIFICATE

I, BERNICE K. N. MAU, the duly appointed and qualified Acting City Clerk of the City and County of Honolulu, State of Hawaii, do hereby certify that attached hereto is a copy of the amended Rules of the Department of Environmental Services.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Seal of the City and County of Honolulu, Hawaii, to be affixed this 14th day of May 2009.

BERNICE K. N. MAU
Acting City Clerk
City and County of Honolulu
State of Hawaii
May 14, 2009

The Honorable James "Duke" Aiona, Jr.
Lieutenant Governor
State of Hawaii
P.O. Box 3226
Honolulu, Hawaii 96813

Dear Lieutenant Governor Aiona:

Pursuant to Hawaii Revised Statutes, transmitted for filing are two copies of the amended Rules and Regulations of the Department of Environmental Services.

Sincerely,

Bernice K. N. Mau

BERNICE K. N. MAU
Acting City Clerk

ah

Enclosures
May 14, 2009

Mr. Timothy E. Steinberger P.E., Director
Department of Environmental Services
City and County of Honolulu
Honolulu, Hawaii 96813

Dear Mr. Steinberger:

I am transmitting the original rules of the Department of Environmental Services, City and County of Honolulu, relating to Grease Interceptor Program Compliance, filed by your department on May 14, 2009.

Sincerely,

Bernice K. N. Mau

BERNICE K. N. MAU
Acting City Clerk

ah

Attachment