Summary of Substantive Changes
between the 2000 and 2018 editions of
ASME A112.14.3 "Hydromechanical Grease Interceptors"

Presented to the IAPMO Standards Review Committee on July 9, 2018

General: The changes to this standard will likely have an impact on currently listed products. The substantive changes are:

- Expanded the scope to cover interceptors with capacity over 100 gpm (see Section 1.1)
- Clarified the rating of grease interceptors either by gpm or L/min and added a requirement to test grease interceptors without any restriction of the flow when a flow control is not required by the manufacturer (see Section 2)
- Added additional equipment specifications to allow for evaluation of interceptors rated over 100 gpm (see Sections 3.1 and 3.2)
- Added a requirement to check the viscosity of the test media, revised the check flow rate test, and changed the measured time for discharge to a minimum of 108.6 seconds and maximum discharge time from 126 to 114 seconds (see Section 3.3).
- Added an option for the manufacturer to choose to determine the efficiency at the interceptors' minimum grease capacity and included testing procedures to determine the efficiency at the minimum grease capacity (see Section 3.4)
- Moved the test reporting form from informative appendix C into the body of the standard (see Section 3.6)
- Added additional requirements for the installation and maintenance instructions (see Section 4)
- New requirements for Sizing, Installation, Application and Flow Control were added to the body of the standard, however these requirements were substantially moved from the former Nonmandatory Appendixes A and B (see Sections 5, 6, 7 and 8)

Title: Changed to clarify the products covered as follows:
Hydromechanical Grease Interceptors

Section 1.1, Scope: Expanded the scope to cover interceptors with capacity over 100 gpm as follows:
1.1 Scope
This Standard covers general product requirements as well as the performance criteria for the testing and rating of hydromechanical grease interceptors, ~~whose~~ rated ~~flows are 100 gpm (380 L/m) or less~~ by flow in gallons per minute (gpm) or liters per minute {L/min).

1.2 Units of Measurement
Values are stated in U.S. Customary units and in the International System of Units (SI). The U.S. Customary units shall be considered as the standard.
~~In this Standard, gallons (U.S. liquid) per minute is abbreviated gpm, and liters (metric liquid) per minute is abbreviated L/m.~~

Section 1.3, Reference Standards: The following standards were added, revised or deleted as follows:
ASME A112.3.1, Stainless Steel Drainage Systems
ASTM A53/A53M, Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
ASTM A888, Standard Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary ~~Systems~~ and Storm Drain, Waste, and Vent Piping Applications
ASTM D2665, Standard Specification for Poly (Vinyl Chloride) {PVC) Plastic Drain, Waste, and Vent Pipe and Fittings

Section 1.4 Definitions: The following definitions we added, revised or deleted as follows:
breakdown grease capacity: the number of pounds or kilograms of grease a grease interceptor retains at a specific flow rate at the last increment preceding two successive increments in which either the average efficiency is less than 90% or the incremental efficiency is less than 80%.

directly connected: a grease interceptor that is designed to receive the discharge directly from fixtures without an air gap or air break and be directly or indirectly connected to the plumbing drainage system.
flow control, unvented: a device installed upstream ~~from~~ of or within the interceptor, having an orifice that controls the rate of flow through the interceptor.

flow control, vented: a device installed upstream ~~from~~ of the interceptor having an orifice and air intake (vent) downstream from the orifice which allows air to be drawn into the flow. The device that controls the rate of flow through the interceptor, and an air intake (vent) downstream ~~from the orifice, which allows air to be drawn into the flow stream~~ to the interceptor.

hydromechanical grease interceptor: a plumbing appurtenance *~~(s) that is (are)~~ or appliance* installed in a sanitary drainage system *~~in order~~* to intercept *nonpetroleum fats, oils, and greases (FOG)* from *a* wastewater discharge; *rated by flow*. *~~Such equipment has the ability to intercept commonly available free-floating fats and oils.~~ The design incorporates, air entrainment, hydromechanical separation, interior baffling, and/or barriers in combination or separately, and one or more of the following:*
(a) external flow control, with air intake (vent), directly connected
(b) external flow control, without air intake (vent), directly connected
(c) without external flow control, directly connected
(d) without external flow control, indirectly connected

indirectly connected: a grease interceptor that is designed to ~~be installed~~ receive the discharge from fixtures through an air gap or air break and be directly or indirectly connected to the ~~sanitary~~ plumbing drainage system.

minimum grease capacity: the number of pounds or kilograms of grease a grease interceptor must retain at a specified flow rate from Table 1.

Section 2, General Requirements: Clarified the rating of grease interceptors either by gpm or L/min and added a requirement to test grease interceptors without any restriction of the flow when a flow control is not required by the manufacturer as follows:

~~2.2~~ 2.1 Rating

The flow rate and grease retention capacity of each grease interceptor shall be ~~rated consistent with~~ determined by application of the parameters of this Standard. Grease interceptor size shall be expressed in gallons per minute (gpm) and/or liters per minute {L/min).

Grease interceptors shall be rated using one or more of the following methods:

Type	*Figure*	*Installation Parameters*
A	*1*	*Units with an external flow control, with air intake (vent): directly connected*
B	*1*	*Units with an external flow control, without air intake (vent): directly connected*
C	*2*	*Units without an external flow control: directly connected*
D	*3*	*Units without an external flow control: indirectly connected*

~~2.3~~2.2 Inlet and Outlet Connections

2.2.1 The inlet and outlet connections of the grease interceptor shall be either ~~female~~ pipe thread or of a plain end diameter to allow hubless coupling connections.

The manufacturer's installation requirements shall identify installation parameters sufficiently to enable connection consistent with the test parameters of this Standard.

~~*2.1 Design*~~

~~*Grease interceptors shall comply with all the applicable requirements of ASME B1.20.1 and ASTM A 888.*~~

2.2.2 ~~Tapered threads~~ Grease interceptor connections shall comply with ASME A112.3.1, ASME B1.20.1, ASTM A53/A53M, ASTM A888, or ASTM D2665. ~~Hubless connections shall comply with the dimensional requirements of ASTM A 888.~~

2.2.3 Grease interceptors shall be connected as prescribed by the manufacturer, consistent with this Standard.

~~2.4~~2.3 Flow Controls and/or Vents

~~2.4.1~~2.3.1 The use and placement of flow controls and/or vents or air intakes for grease interceptors shall be ~~the option of~~ in accordance with the manufacturer's installation requirements.

When a flow control is not required by the manufacturer, testing shall be conducted at the manufacturer's prescribed rate of flow without any restriction of the flow from the test apparatus to the grease interceptor.

~~2.4.2~~2.3.2 When a flow control (vented or unvented) and/or vent is used during testing for rating a grease interceptor, the rating of the unit shall not exceed the ~~maximum~~ tested flow through the flow control. The manufacturer's literature shall reflect that the rating was achieved with the flow control and/or vent attached, and that the flow control and/or vent shall be installed with the unit

Section 3, Testing:

Section 3.1 Construction of Test Equipment: Added additional testing equipment specifications to allow for evaluation of interceptors rated over 100 gpm and included dimensional requirements for the skimming tanks as follows:

3.1.1 Test Sink ~~*Two sinks of the above description shall be used when tests are conducted for flow rates greater than 50 gpm (190 L/m) but not exceeding 100 gpm (380 L/m).*~~

(a) The sinks shall be constructed of corrosion resistant material, structurally reinforced and supported on legs. The legs shall be of such length that the rim of the sinks are 3 ft (0.91 m) above the floor. The sink legs shall be structurally braced.

(b) ~~*The sink used in the tests shall*~~ *For flow rates up to and including 50 gpm (189 L/ min) the test sinks shall be 50 gal (189 L) and have the following inside dimensions: 8 ft (2.44 m) in length, 2 ft (0.61 m) in width, and 12 1/2 in. (0.32 m) in depth. The sinks shall have two compartments*~~, each 4 ft (1.22 m) in~~ *of equal length.*

(c) ~~*Two sinks of the above description shall be used when tests are conducted f*~~*For flow rates above 50 gpm (189 L/min) up to and including 100 gpm (378 L/min), the test sinks shall be as follows:*

(1) multiples of two of the sinks specified in (b).

(2) a 100 gal sink having the following dimensions: 128 in. (3.2 m) in length, 36 in. (0.91 m) in width, and 12.5 in. (0.32 m) in depth; it shall be divided into two equal compartments.

(d) For flow rates of greater than 100 gpm (378 L/min), two or more sinks as specified in (b) or (c) shall be used.

3.1.1.1 Sink Waste Connections. *For sinks constructed per para. 3.1.l(b), each sink compartment shall be fitted with a 1 1/2 in. (38 mm) standard sink waste connection with flange,* ~~*crossbars,*~~ *threaded or slip joint tailpiece, and locknut. The waste connections shall be located on opposite sides of the center partition in the corner formed by the front side of the sink and the center partition.*

For sinks constructed per para. 3.1.1(c), each sink compartment shall be fitted with a 2 in. (51 mm) sink waste connection with flange, threaded or slip joint tailpiece, and locknut. The waste connections shall be located on opposite sides of the center partition in the corner formed by the front side of the sink and the center partition.

3.1.2 Skimming Tank.

The skimming tank shall be constructed as follows:

(a) The skimming tank shall be rectangular in shape and open at the top. The tank shall be constructed of galvanized sheet or corrosion resisting metal with structural reinforcement

(b) The tank shall be 12 ft (3.66 m) in length, 36 in. (0.91 m) in width, and 28 in. (0.71 m) in depth. NOTE: If the flow rate is 50 gpm (189 L/min) or less, the tank may be approximately 8 ft (2.44 m) in length, 28 in. (0.71 m) in width, and 32 in. (0.81 m) in depth.

(c) The waste outlet from the tank shall be 4 in. (102 mm) in diameter, connected to the bottom of the tank at one end and trapped to retain a minimum of 18 in. (0.45 m) of water in the tank. The tank shall be provided with a 4 in. (102 mm) bottom drain and valve to permit draining and cleaning.

(d) The skimming tank shall be equipped with a stationary baffle located approximately ~~*3*~~*4 ft (*~~*0.91*~~ *1.22 m) from the end of the tank receiving the discharge from the interceptor. This baffle shall extend the width of the tank and to within 4 in. (102 mm) of the bottom of the tank. The purpose of this baffle shall be to limit the heavy spread of grease to one end of the tank and to control to a degree the turbulent water currents created by the discharge from the interceptor.*

Section 3.2, Installation of Testing Equipment: Added additional equipment specifications to allow for evaluation of interceptors rated over 100 gpm as follows:

3.2.1 Direct Connection Test Types A, B, and C. *See Figures 1 and 2.*

3.2.1.1 Waste Piping. *The combined horizontal waste, vertical waste riser, and interceptor inlet ~~and discharge piping~~ shall be 2 in. (~~50~~ 51 mm) for test flows of 50 gpm (~~190~~ 189 L/min) or less and 3 in. (76 mm) for test flows over 50 gpm (~~190~~ 189 L/min). Discharge piping from the interceptor on test shall be equal to the outlet of the interceptor.*

3.2.1.2 Sink and Interceptor Locations. *The sink shall be located with the sink rim 13 ft (3.96 m) above the outside bottom of the grease interceptor being tested. The interceptor shall be so located that its bottom is 10 ft (3.05 m)*

3.2.1.4 Installation of Waste Piping

3.2.1.4.1 ~~(a)~~Sink Connections. *For test flows of 50 gpm (189 L/min) or less, the sink outlet waste connection from each sink compartment shall be $1^1/_2$ in. (38 mm) in size; for test flows over 50 gpm (189 L/min), the sink outlet waste connection from each compartment shall be 2 in. (51 mm) in size and each connection shall be fitted with a quarter-turn ball quick opening valve.*

3.2.1.4.3 ~~(c)~~Flow Control and/or Vent Device. *The flow control and/or vent device, if required by manufacturer, shall be adequate in size for the interceptor to be tested, and equipped with the proper size orifice and/or other details to provide the proposed flow rate of the subject interceptor based on the simultaneous drainage of both sink compartments as detailed hereinafter (see para. 3.3.4.1). The waste piping on either side of the flow control and/or vent shall be fitted with unions to permit removal of the* device. *If the flow control orifice required exceeds 2 in. (51 mm) in diameter, thereby requiring a flow control larger than 2 in. (51 mm), the outlet piping shall be no less than 3 in. (77 mm).*

3.2.1.4.4 ~~(d)~~Vertical Waste Riser*. The vertical waste riser shall be connected to the outlet of the flow control and/or vent device, if required, and shall extend downward to connect to the grease interceptor inlet by means of an elbow and a short horizontal nipple. Test flows exceeding 50 gpm (189 L/min) requiring connections larger than 2 in. (51 mm), interceptor inlet and outlet sizes shall be no less than 3 in. (77 mm).*

3.2.1.4.5 ~~(f)~~Interceptor Inlet Connection. *If the inlet ~~and/or outlet openings~~ diameter of the interceptor to be tested exceeds ~~2 in. (50 mm) or 3 in. (76 mm) for test flows exceeding 50 gpm (190 L/m) in~~ the riser pipe diameter size, use reducing couplings ~~shall be used~~ to permit connection of the ~~2 in. (50 mm) or 3 in. (76 mm) for test flows exceeding 50 gpm (190 L/m),~~ inlet ~~and discharge~~ pipe.*

3.2.1.4.6 ~~*(c)*~~***Interceptor Discharge.*** *The discharge pipe from the interceptor outlet to the skimming tank shall be equal in size to the outlet of the interceptor,* ~~*shall*~~ *have a* ~~*minimum*~~ *pitch of* $^{1}/_{8}$ *in./ft (1 cm/m), and be provided with a 2 in. (*~~*50*~~ *51 mm) vent properly located to prevent siphoning of the interceptor.*

Section 3.3, Preliminary Test Procedure: Added a requirement to check the viscosity of the test media, revised the check flow rate test, and changed the measured time for discharge to a minimum of 108.6 seconds and maximum discharge time from 126 to 114 seconds.

3.3.1 Media Analysis. *Before conducting rating tests on any grease interceptor, simple analysis of the test media shall be made to determine that it complies with the following characteristics:*

(a) Water: hydrogen ion concentration (pH value from 6.0 to 8.0).

(b) Lard: specific gravity of 0.875 ± 0.005, at 150°F (66°C).

(c) Viscosity in Seconds Saybolt universal (SSU), at 150°F (655°C).

3.3.4.1 Check Flow Rate Tests. *The flow rates of the test sinks shall be calibrated using the following procedure:*

(a) Setup

- *(1) establish the sink compartment capacities*
- *(2) connect the sink to the interceptor with the flow control and/or vent or equivalent device, as required*
- *(3) confirm equipment is properly sized and installed*
- *(4) confirm the interceptor discharge pipe is properly vented and extended to the skimming tank*

(b) Test The following series of check flow rate tests shall be made. Three tests shall be made for each of the following four conditions:

- *(1) With the waste outlet from the adjacent compartment closed off, drain, gauge, and compute the flow rate from compartment No. 1.*
- *(2) With the waste outlet from the adjacent compartment closed off, drain, gauge, and compute the flow rate from compartment No. 2.*
- *(3) Drain compartments No. 1 and No. 2 simultaneously and gauge and compute the flow rate on the basis of the time required to drain compartment No. 1.*
- *(4) Drain compartments No. 1 and No. 2 simultaneously and gauge and compute the flow rate on the basis of the time required to drain compartment No. 2.*

~~*(c)*~~*(c)* ~~*For all test methods,*~~ *Criteria. For test methods (b)(3) and (b)(4),* *the time for* ~~*total*~~ *the measured discharge shall not be less than 108.6 sec* ~~*or shall not*~~ *exceed 114 sec.*

NOTE: Flow rates determined in ~~*(a)*~~ *(b)(1) and (b)(2) are only for purposes of checking against actual flow rates of test increments.*

Section 3.4, Rating Test Procedure: Added an option to determine the efficiency at the interceptors minimum grease capacity and included a testing procedure to determine the efficiency at the minimum grease capacity as follows:

~~***3.5.1***~~ ***3.4.1 Test Media.*** *Certification tests shall be conducted with fresh, unused lard with recorded physical characteristics stated in para. 3.3.1(b) and water as defined in para. 3.3.l(a), both within a temperature range of 150°F to 160°F (66°C to 71 °C).*

~~3.5.2~~ 3.4.2 **Ratio of Lard to Water.** *Both compartments of the test sink(s) shall be supplied with the required volume of water (para. 3.3.3) at the temperature prescribed in para. 3.4. The test lard, within the above temperature range, shall be introduced into one compartment, during each incremental discharge, in the ratio of 1 lb (0.45 kg) of lard for each 5 gal (19 L) of water in that compartment Consequently, the proportion of lard to the total amount of water discharged from both sink compartments during each increment shall be 1 lb (0.45 kg) for each 10 gal (38 L), respectively.* ~~*The required amount of test lard, within the above temperature range, shall be weighed out and poured into the test compartment of the sink.*~~

~~3.5.3~~ 3.4.3 **Test Increments**

(a) Each test increment shall consist of the simultaneous discharge of the water from both sink compartments and the lard from the test compartment.

(b) During the first test increment, the lard shall be poured into the No. 1 compartment (that compartment having its discharge outlet closest to the interceptor, measured along the waste pipe) and the No. 2 compartment shall discharge clear water. During the second test increment the lard shall be poured into the No. 2 compartment while the water in No. 1 compartment remains clear. This procedure of introducing the lard into alternate sink compartments shall be continued throughout the test. When multiple sinks are used, there are multiple No. 1 and No. 2 compartments. The lard shall always be introduced in the sink compartments at the ratio specified in para. 3.4.2.

3.4.5 Efficiency Determinations (Minimum Grease Capacity). *At the option of the manufacturer the efficiency determination shall be conducted at either the interceptor's minimum grease capacity per Table 1 (see para. 3.4.7) or at the interceptor's maximum grease capacity by determining the break down point (see para. 3.4.6).*

~~3.5.5~~3.4.6 **Efficiency Determinations** ***(Maximum Grease Capacity)***. *The grease shall be removed from the skimming tank and the efficiency of the interceptor shall be computed at intervals of five increments or less until the average efficiency reaches approximately 93% and/or the incremental efficiency reaches approximately 85%. After this point has been reached, efficiency checks shall be made after each incremental discharge. The formula for determining the above efficiency shall be as follows:*

$$\text{Efficiency} = \frac{\text{Grease Added} - \text{Grease Skimmed}}{\text{Grease added}}$$

~~3.5.6~~3.4.6.1 **Duration of the Test.** The test procedure in para. 3.4.6, is to be continued until the average efficiency reaches 85% or less, and/or the incremental efficiency reaches 75% or less.

~~3.5.7~~3.4.6.2 **Determination of Test Breakdown Grease ~~Retention~~ Capacity. ~~Maximum grease retention capacity~~***The test failure, or breakdown grease capacity of the interceptor, shall be established at the increment preceding two successive increments in which either the average efficiency is less than 90% or the incremental efficiency is less than 80%.~~The efficiencies used in determining the grease retention capacity shall be either "A," efficiencies determined on the basis of no unaccounted loss or gain, or "B," efficiencies adjusted for unaccounted loss or gain, whichever provides the lesser efficiency for the interceptor. The formulas for determining the above efficiencies shall be as follows:~~

$$\text{Efficiency "A"} = \frac{\text{Grease Added} - \text{Grease Skimmed}}{\text{Grease Added}}$$

$$\text{Efficiency "B"} = \frac{\text{Grease Added}\left\{100\% \begin{matrix}+\%\ \text{Gain} \\ -\%\ \text{Loss}\end{matrix}\right\} - \text{Grease Skimmed}}{\text{Grease Added}\left\{100\% \begin{matrix}+\%\ \text{Gain} \\ -\%\ \text{Loss}\end{matrix}\right\}}$$

~~*If the grease retention capacity is reached at a higher efficiency, the formulas shall be used to determine the efficiency of the interceptor for the grease retention capacity.*~~

3.4.7 Efficiency Determinations (Minimum Grease Capacity). *The grease shall be removed from the skimming tank and the efficiency of the interceptor shall be computed at intervals of five increments or less until the average efficiency reaches approximately 93% and/or the incremental efficiency reaches approximately 85%. After this point has been reached, efficiency checks shall be made after each incremental discharge. The formula for determining the above efficiency shall be as follows:*

$$\text{Efficiency} = \frac{\text{Grease Added} - \text{Grease Skimmed}}{\text{Grease added}}$$

3.4.7.1 Duration of the Test. *The test procedure in para. 3.4.7 is to be continued until the 12th increment*

3.4.7.2 Determination of Efficiency at Minimum Grease Capacity. *The efficiency shall be established at the increment preceding the increment in which either the average efficiency is less than 90% or the incremental efficiency is less than 80%. If the average efficiency has not yet dropped below 90% or the incremental efficiency has not yet dropped below 80%, the efficiency shall be reported at the 12th increment.*

Section 3.5, Skimming Procedure: Clarified the skimming procedure as follows:

~~3.4~~ 3.5 Skimming Procedure

The skimming procedure shall be initiated ~~approximately~~ no less than 5 min after the increment to be skimmed has discharged into the tank. A sheet metal hand baffle, slightly shorter than the width of the skimming tank and 12 in. (305 mm) in width shall be employed to push all surfaced grease to one corner of the tank from which the ~~layer of~~ grease is readily skimmed by means of a rectangular pan. The mixture of water and grease thus removed shall be placed in a ~~pail~~ separatory funnel equipped with a ~~drainage spigot~~ drain cock. All grease shall be squeegeed from the baffle and pan. This process shall be continued until ~~most of~~ the visible grease has been removed from the surface of the water in the skim tank.

~~At this point, while the hand baffle previously used is allowed to cool, a second hand baffle shall be employed in the following manner:~~ The first 1 in. (25 mm) of the baffle plate shall be immersed at one end of the skimming tank and the baffle moved toward the opposite end, as before, to concentrate ~~the now thin film of~~ surfaced grease. The baffle shall be moved at a rate ~~slow enough~~ sufficient to prevent turbulence from drawing the accumulating grease below the baffle, ~~and fast enough so that a minimum of grease will pass~~ and to minimize grease passing through the clearance space between the baffle and the tank walls.

Upon reaching a point 2 in. (~~50~~51 mm) from the end of the tank, the baffle motion shall be slowed ~~and at the same time the baffle shall be~~ simultaneously lowered to bring the cooler surface in contact with the trapped grease. The motion shall be ~~so regulated as to~~ executed such that the baffle is submerged to within 1 in. (25 mm) of its top upon reaching the end of the last 2 in. (~~50~~ 51 mm) of horizontal travel. The baffle shall then be removed from the water and moved, grease side up, to the ~~pail~~ separatory funnel where the adhering grease shall be squeegeed off and added to the previous contents. ~~By now, the first baffle has cooled and the above procedure is repeated using it.~~ The baffle shall be used ~~alternately~~ until the amounts of grease collected are less than 1 % by visual observation.

~~Upon completion of the above skimming procedures, the water shall be drained from the bottom of the pail by means of the spigot. The pail shall then be placed over a gas flame and its contents heated until the residual water is brought to boiling temperature; that is, until bubbles of steam rise through the molten grease.~~

The mixture shall be allowed to stand in the funnel for ~~approximately~~ 5 min, at the end of which time the water is drawn off from the bottom of the funnel.~~ The remaining liquid shall be permitted to separate for approximately 5 min more and the water shall again be removed from the bottom of the funnel.~~ The remainder shall be drained from the separatory funnel into one or more preweighed cans.

The cans shall be cooled to solidify the grease. The cans may be placed in a freezer or refrigerator to expedite the cooling process. The solidified contents shall then be scraped and kneaded with a small putty knife, and the water thus worked from the mixture shall be poured off. If the quantity of water thus removed is greater than several drops, the heating and solidification process shall be repeated. When only a few drops of water are removed in this manner, the mixture shall be assumed to be completely dewatered and weights are taken for computation purposes.

Section 3.6 Grease Interceptor Rating Test Reporting Form: Moved the test reporting form from informative appendix C into the body of the standard as follows:

***~~NONMANDATORY APPENDIX C~~ 3.6* Grease Interceptor Rating Test Reporting Form**

FORM 3.6-1 "Grease Interceptor Rating Test Reporting Form"

Section 4, Labeling, Installation, and Maintenance: Added additional requirements for installation and maintenance instructions as follows:

4.2 Installation ~~Instructions~~ Components

Hydromechanical grease interceptors shall be provided with complete installation instructions, including but not limited to the following:

(a) properly sized flow control and/or vent requirements (if required by manufacturer)

(b) separate trapping requirements (if required by manufacturer)

(c) elevation and accessibility requirements

(d) safety and health related instructions

(e) cleanout locations

(f) instructions which show the clearances required for maintenance, cleaning, and to prevent hazards

(g) cautions against installation in any manner except as tested and rated

(h) where a reducer is required on the outlet, it shall be eccentric with the flat on the bottom

NOTE: An eccentric reducer will prevent changing the static water level and performance of the interceptor.

4.3 Maintenance and Cleaning Instructions

Units shall be provided with maintenance and cleaning instructions including but not limited to the following:

(a) maintenance instructions

(b) safety and health provisions

(c) cleaning instructions

Each grease interceptor shall be provided with service and cleaning instructions, which include a trouble shooting guide as well as instructions for performing necessary servicing or for obtaining servicing.

New Sections 5, 6, 7, and 8: New requirements for Sizing, Installation, Application and Flow Control were added to the body of the standard, however the requirements were substantially moved from the former Nonmandatory Appendixes A and B:

~~NONMANDATORY APPENDIX A~~
~~SIZING, INSTALLATION, AND MAINTENANCE OF GREASE INTERCEPTORS~~

~~NONMANDATORY APPENDIX B~~
~~RECOMMENDED FIXTURE CAPACITY LIMITATIONS~~

Section 5, Sizing and Maintenance of Grease Interceptors:

5.1 General

The recommendations for sizing, installation, and maintenance of grease interceptors contained in this section are based on input from POI. Table 1 is used for guideline purposes and larger sizes are based on two pounds per gpm of rated flow.

5.2 Sizing

5.2.1 Sizing Considerations. *Grease interceptors conforming to this Standard are designed to operate efficiently at their rated flow.*

5.2.2 Size Symbols. *It has been determined through the testing and rating procedure that ten different· sized interceptors are required for normal domestic, commercial, and institutional installations. These sizes are based on standard flow rates and grease retention capacity ratings for grease interceptors. (See Table 1.)*

5.2.3 Sizing Procedure. *Table 2 shows the basic standard formula in steps for sizing grease interceptors to suit requirements of specific fixtures. An example of this sizing formula application is included to illustrate the steps. Table 3 is included as a method for sizing grease interceptors utilizing maximum pipe capacity.*

Section 6, Applications:

6.1 Dishwashers

A separate grease interceptor is recommended for each commercial dishwasher. The size of the interceptor is determined by the discharge rate (gpm) of the dishwasher as specified by the manufacturer. Select the proper interceptor of equivalent or next higher rate from Table 1.

6.2 Multiple Fixtures

Where multiple fixtures are served by a single interceptor, calculate the total capacity of all fixtures, establish the number of fixtures that may be drained simultaneously and apply this factor to the total capacity to determine the maximum simultaneous capacity. Then proceed with sizing and selection of the grease interceptor using the sizing formula in Table 2.

Section 7, Installation:

All installation recommendations are subject to approval of the code authority.

7.1 Installation Considerations

7.1.1 Location. *Install the interceptor as close as practical to fixture or fixtures being served. The interceptor may be set on the floor, partially recessed in the floor, or fully recessed below the floor to suit piping and structural conditions.*

7.1.2 Clearance*. Anticipate sufficient clearance for removal of the interceptor cover for cleaning. Avoid installation wherein long runs of pipe (exceeding 25 ft) are necessary to reach the interceptor. This precaution will reduce the possibility of pipeline becoming clogged with congealed grease that could collect before reaching the interceptor.*

7.1.3 Prohibited Fixtures. *Do not install piping from other sanitary fixtures such as water closets, urinals, and lavatories into the inlet piping to an interceptor. 10 The inlet piping to the interceptor should only be from fixtures and appliances that discharge grease or oil laden wastes.*

7.1.4 Waste Line Venting. *The waste line downstream from a grease interceptor shall be vented in accordance with plumbing code requirements.*

7.1.5 Alternate Installations. *Grease interceptors that are tested and rated without the use of vented flow control devices should be installed in the same manner as tested and rated, in accordance with the manufacturer's instructions.*

7.1.6 Installation Diagrams. *Figures 4 through 7 are included to illustrate various grease interceptor installations normally encountered. These figures will serve as a guide to practical application of grease interceptors.*

Section 8, Flow Control and/or Vent

The flow control and/or vent fitting, when furnished with interceptors, shall be installed ahead of the interceptor in the waste line beyond the last connection from the fixture and as close as possible to the underside of the lowest fixture on the horizontal line. When waste of two or more sinks or fixtures are combined to be served by one interceptor, a single flow control and/or vent fitting may be used. Except in the case of indirect waste installations, each fixture connected to a grease interceptor shall be trapped in accordance with the plumbing code. In no instance should a fixture vent be located between the vented flow control device and the grease interceptor.

Table 2, Procedure for Sizing Grease Interceptors: Table A2 was revised and moved into the body of the standard.

Table 3 Interceptor Sizing Method Utilizing Maximum Pipe Capacity: Added a new table for sizing grease interceptors utilizing maximum pipe capacity.