



March 1, 2014

Ref: Food Vendor Notice - Requirement for Solids and Grease Traps

This communication establishes a policy requiring the use of in-line grease traps for all food stands utilizing sanitary sewer drains on the Arizona State Fairgrounds.

Grease is the most frequent cause of sewer problems. The Fairgrounds has been a victim of grease issues and a majority of our sewer related problems are related to grease blockages. Grease related back-ups in the drains are aggravated with sewage from the buildings or living space areas which causes health and safety issues. The City of Phoenix is aware the fairgrounds is an aged facility and does not have grease interceptors. Without the use of interceptors, the opportunity for grease, oils and solid food pollutants to enter the City Sewer system is of significant risk. When the City's Water Services Department has to contend with sewer backups and overflows in the city sewer lines due to grease, there are consequences of both a financial and regulatory nature.

The City of Phoenix has initiated conversations with the Fairgrounds to prevent grease and solid food matter items from entering the sewer system. As the property operator and responsible party, the Fairgrounds is serious about addressing this situation and preventing costly penalties. From our discussions with the City of Phoenix and previous conversations with the Maricopa County Health Department, the use of in-line grease traps is our best and most practical solution.

It is the responsibility of the food stand operator to obtain, properly install and maintain an in-line grease trap when connecting to the Fairground's sanitary sewer system. Grease traps may be found at restaurant supply sources, plumbing supplies and on-line websites. The size of the grease trap is determined by the size of the sinks in the food stand and the discharge (gallons per minute) volume. Stand Operators are encouraged to shop the market to find the best trap suited to their stand. Grease traps are gravity flow operated so plumbing to the trap and its discharge to the drain system is critically important for it to properly work. Drain lines must be elevated to cause proper flow. Stand Operators should also consider and discuss with the seller the cleaning process. Stands using high volumes of cooking oil may need to clean the grease trap more frequently than other stands. It is anticipated the City of Phoenix will be visiting the fairgrounds during events to monitor both the use of grease traps and the practice of cleaning them. The Fairgrounds invites this partnership with the City of Phoenix and their opportunity to help educate rather than enforce this problem. Cooperation and good faith efforts from all of our food stand operators will minimize the problem of food and grease in the drains.

In the event a food stand is unable to utilize a grease trap in their assigned or previously assigned location on the fairgrounds they may be required to relocate so they may use a grease trap or the use of a self-contained discharge bladder could be optioned. Bladders are commonly used at event venues not having a sanitary drain system and are picked up or pumped out by a septic company. In no situation will a food stand be permitted to operate on the fairgrounds without a grease trap or approved grease capturing method.

The Arizona Exposition and State Fair has not taken this issue lightly and has struggled in adopting this requirement with our food vendors. In our discussion with the City of Phoenix and in talking with other venues, we know this is a new obstacle and increased cost for doing business. As other public utility systems begin to step up enforcement, we believe this will be a new standard and universal practice at other locations in the near future.

The following items are offered to assist in you selection and operation of a grease trap:

- Grease traps are sized for discharge flow from the drain line in gallons per minute and captured pounds. The trap has to be of sufficient size to capture grease and or particles as waste water runs through it. If the trap is too small, grease and particle matter will wash through the collection area within the trap and enter the drain system.
- Grease traps are constructed of stainless steel and PVC materials. Both construction materials have useful life limitations due to exposure to elements, use and care.
- Consultation with a plumber or knowledgeable like party should be considered in locating and connecting the grease trap to ensure proper flow.
- Food Stand operators should be knowledgeable in cleaning and caring for the grease trap. Grease traps should not be allowed to fill up or collect excessive amounts of grease or oils. Depending on the size and construction there is a functional level of approximately 25% full which is not to be exceeded or grease will wash through the trap.
- Waste from the grease trap should be properly bagged and disposed of with like garbage. Rinsing out the grease trap and dumping it down the drain is prohibited.

Informational Source Suggestions:

http://en.wikipedia.org/wiki/Grease_interceptor

Grease traps (also known as **grease interceptors**, **grease recovery devices** and **grease converters**) are [plumbing](#) devices designed to intercept most [greases](#) and solids before they enter a wastewater disposal system.

Grease trap sizing is based on the size of the 2 or 3 compartment sink, dishwasher, pot sinks, and mop sinks. The cumulative flow rates of the aforementioned devices, as well as overall grease retention capacity (typically in pounds or kilograms) are considered. Currently, ASME Standard (ASME A112.14.3) is being adopted by both of the National Model Plumbing Codes that cover most of the United States. This standard requires that grease interceptors remove a minimum of 90% of the incoming FOGS. It also requires that grease interceptors are third-party tested and certified to 90 days compliance with the standard pumping. This third-party testing must be conducted by a recognized and approved third-party testing laboratory.

The most common, passive grease traps, are small point of use units used under three compartment sinks within the kitchen. There has been little innovation in this in kitchen passive grease trap technology until recently with the introduction of a liner grease trap, which provide significant health, hygiene and safety benefits for end users. They restrict flow and remove 85-90% of the incoming FOG. Food Solids along with fats, oils, and grease are trapped and stored in these devices.

[Grease Trap 101 - Tip for Cleaning a Grease Trap](#)

www.naturalenviro.com/Article.php?ArticleSKU=Grease-Trap-101

What is a **Grease Trap**? A **grease trap** or **grease** interceptor is a receptacle located between the restaurant drain lines and the sanitary sewer lines that allows for the ...

How to Clean a **Grease Trap**: 9 Steps (with Pictures) - wikiHow

www.wikihow.com › ... › [Cars](#) › [Car Maintenance and Repair](#)

How to Clean a **Grease Trap**. **Grease traps** are designed to do just what the name implies, which is to **trap** fatty oils, greases, and sludge, and to separate the oils ...

City of Phoenix Code:

28-8 General user requirements.

It shall be unlawful for any user to discharge or cause to be discharged to any entry point into the publicly owned sanitary sewer system:

- (a) Unless otherwise approved by the Director, any storm water, surface water, groundwater, roof runoff, surface drainage, cooling water or unpolluted process waters that may constitute inflow as defined herein.
- (b) Pollutants which create a fire or explosion hazard to the system or POTW. In no case shall pollutants be discharged with a closed cup flashpoint less than one hundred forty degrees Fahrenheit (sixty degrees Centigrade), or pollutants which cause an exceedance of ten percent of the lower explosive limit (LEL) at any point within the POTW for any single reading or more than five percent for any two consecutive readings.
- (c) Solid or viscous pollutants, animal fats, oils and grease, petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that may cause interference or pass-through or that may cause obstruction to the flow in sewers or other damage to the POTW.
- (d) Any waters or wastes containing a toxic, radioactive, poisonous or other substances in sufficient quantity to cause or have the potential to cause injury or interference with any sewage treatment process, cause corrosive structural damage, constitute a hazard to humans or create any hazard to the sewerage system or in the receiving waters of the POTW or pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems.
- (e) Any waters with a ph less than 5.0 standard units (S.U.) or greater than 10.5 S.U.
- (f) Any waters with a temperature greater than one hundred fifty degrees Fahrenheit (sixty-six degrees Centigrade) or heat in amounts which will inhibit biological activity in the POTW resulting in interference, but in no event heat in such quantities that the temperature at the headworks of the POTW treatment plant exceeds one hundred four degrees Fahrenheit (forty degrees Centigrade).
- (g) Any water or waste that has in any way been diluted, as a substitute for pretreatment, for the purpose of obtaining compliance with any categorical standard or pretreatment requirement imposed by this chapter except where dilution is expressly authorized by any categorical standard.
- (h) Any water or waste that could cause a violation of any categorical standard or pretreatment requirement.
- (i) Any water or waste that is transported from the point of generation to the POTW by any septic tank pumper, or chemical waste hauler, or similarly transported unless the transporter has first:
 - (1) Disclosed to the Director the origin, nature, concentration and volume of all pollutants to be discharged; and
 - (2) Obtained the written consent of the Director to discharge.

(j) Any water or waste which could cause interference or pass-through with POTW operations.

(k) Any discharge that exhibits a characteristic of a hazardous waste, or contains a substance that is listed as a hazardous waste pursuant to either Arizona Administrative Code R18-8-261, as amended or title 40, Code Of Federal Regulations Part 261, as amended, whichever is applicable, whether or not the discharge is otherwise subject to hazardous waste regulations. This provision does not apply to domestic wastewater or to discharges of hazardous wastes that are authorized by the Director.

(l) Any water or waste exceeding the limits for the following substances that are expressed in the total form except if otherwise stated:

**INSTANTANEOUS EFFLUENT
LIMITATIONS**

Substance	Limitation
Benzene	35 ug/L*
Chloroform	2000 ug/L

* micrograms per liter

(m) Any of the following prohibited substances:

4,4'—DDE

4,4'—DDT

Aldrin

BHC-alpha

BHC-beta

BHC-gamma (Lindane)

Heptachlor

Heptachlor expoxide

Polychlorinated biphenyl compounds (PCB)

(Ord. No. G-1935, § 2; Ord. No. G-2489, § 2; Ord. No. G-3384, § 1; Ord. No. G-3662, § 1; Ord. No. G-4635, § 1b, adopted 8-31-2004, eff. 1-1-2005)