

CODE ALERT

This publication is intended as a service to building owners, architects and facilities managers by presenting topics of general interest to the industry. For more information please contact Art Linden at 713-237-9800. The information originates from established industry publications and other informed sources.

Grease Traps and Grease Interceptors

The Houston Plumbing Code defines a grease trap as a device designed to retain grease from one to a maximum of four fixtures. A grease interceptor is defined as an interceptor of at least 750 gallon capacity to serve one or more fixtures and which shall be remotely located. The term "grease trap" is used loosely in this article for either device.

A frequently asked question is what triggers the need for a grease trap in food service establishments. When grease traps are required, why do they need to be so large?

The answers to these questions begin with the City of Houston Department of Health and Human Services Publication titled "Procedures Governing Food Establishment Blueprints". The paragraph entitled "Cleaning and Sanitation" states that a three compartment sink shall be used if washing, rinsing and sanitation of equipment or utensils is done manually. In general, every food service establishment is required to have a three compartment sink, with few exceptions.

The presence of a three compartment sink on the plans and food equipment that has grease producing potential alerts the plumbing plan checkers to look for the grease trap required by the plumbing code HPC paragraph 1009.0.1. "shall be provided when, in the judgment of the administrative authority, they are necessary..." Each business establishment for which a grease interceptor is required shall have an interceptor that serves only that establishment. Discussions with the city plumbing plan checkers indicate that grease traps are required wherever food preparation occurs, including facilities with only a hot dog machine or corn popper. The exceptions that we know of are single family residences, coffee shops that don't prepare food, ice cream shops that don't make their own cones, and some shops that bring in packaged food from another location. There may be other exceptions, but we haven't encountered them yet. (Please contact the writer if we have missed any).

Having determined that a grease trap is required, how is the size determined? Appendix H, table H-1 of the Houston Plumbing Code provides sizing criteria that uses the number of meals served per hour based on the quantity of dining seats. The resulting answer for this calculation is usually a fairly large volume grease trap. Grease interceptors of this type are commonly pre-cast concrete having capacity of at least 750 gallons (frequently much larger). This type of interceptor is, by necessity, usually installed outdoors with manhole access lids flush with grade or paving. It should be noted that 750 gallons is the minimum capacity allowed in Houston for interceptors of this type.

Another (smaller) type of grease trap can be specified under certain circumstances. So-called mechanical type grease traps are manufactured by the same companies that produce plumbing specialties like floor drains and fixture carriers. This type of trap uses a flow restrictor to limit the flow to the gpm value that the trap is listed to serve. The common size specified is 50/100 (rated for 50 gpm with 100 pound grease capacity). The physical size is roughly 3 ft. x 2 ft. x 2ft. Houston will allow use of this type of device for food establishments that have only sinks but no dishwasher. Up to four sink compartments may drain through a 50/100 (example: the 3 compartment sink plus a mop sink = 4 compartments). The size of this trap makes it possible to install indoors, close to the source of kitchen waste, but The health department prefers outdoor installations wherever practical. Grease traps may not be installed where food is handled. For indoor installations, include provisions for a dedicated grease trap room that is about the size of a closet. An exhaust fan, with switch control is required for the room for use when the trap is being cleaned.

A common question about mechanical grease trap installations is if the trap has to be recessed in the floor. The trap must be recessed in the floor. It can not stand on the floor because the floor sink that the 3 compartment sink drains to must be flush with the floor and the drain line from the floor sink is below the floor. The inlet to the grease trap must consequently be below the floor. Attempts have been made to make it work by raising the floor sink above floor level (not allowed by plumbing inspectors) or by direct-connecting the 3 compartment sink waste to the grease trap inlet (not allowed by the health dept. because there is no air gap).

You may have heard about other grease trap options that are available. One type uses bacteria that eats the grease captured in the trap. Another type has a mechanical wheel that draws the grease off of the top and fills a portable container next to the trap. Both types are approved for use in Houston, but the permitting process is difficult and time consuming.

Redding Linden Burr has experience in numerous grease trap installations and would like to assist you on your next project.

Mr. Linden would like to acknowledge the input of Mr. Don Hundl, Plan Analyst at the City of Houston.