Minneapolis
City of Lakes

Grease Interceptors to Control Fats, Oils and Grease (FOG)
Key Minimum Code Requirements

Proper design, installation, and maintenance procedures are critical for grease interceptor devices to control and capture the FOG. Interceptor devices must be designed and sized appropriately to allow FOG to cool and separate in a non-turbulent environment. Food Service Establishments (FSE) must be diligent in having these devices serviced at regular intervals. The required maintenance frequency depends greatly on the amount of FOG a facility generates as well as any best management practices (BMPs) that the establishment implements to reduce the FOG discharged into its sanitary sewer system. In many cases, an establishment that implements BMPs will realize financial benefit through a reduction in their required grease interceptor and trap maintenance frequency.

What is a Grease Interceptor?
A grease interceptor is located between kitchen drain lines and sanitary sewer lines. Grease interceptors capture the FOG that enters sink drains from food service activities such as food preparation, prewash dish stations and cleaning. Interceptors must be properly sized, installed, and maintained to keep FOG and food debris out of the collection system.

Hydromechanical Grease Interceptor (HGI)
Hydromechanical grease interceptors (sometimes called grease traps) are installed indoors under sinks and FOG conveyance fixtures. Their capacity is measured by the volume of water that flows through the fixture, which ranges from 10-500 gallons per minute. These interceptors if sized incorrectly do not always provide enough time for the grease to cool and float to the top. If the grease is not sufficiently cooled, it will pass through and enter the sewer system where it will eventually solidify in the pipes and cause backups. Hydromechanical grease interceptors cannot be hooked up to dishwashers because the water coming out of these is too hot and creates the problem stated above.

Gravity Grease Interceptor (GGI)
Gravity grease interceptors are installed outdoors and may be above ground or underground. These devices separate FOG and food waste from wastewater in large tanks that range in size from 1000 to 4000 gallons. Like any interceptor device, they must be properly maintained to work effectively and be placed in a location that allows for easy access to perform routine cleaning.

Sizing
Properly sizing the grease interceptor (HGI or GGI) is important. Refer to the state plumbing code (Section 1014.0) for a table on proper sizing.

What are Best Management Practices (BMP)?
Practices an FSE can implement that help reduce the amount of FOG going in a drainpipe. These BMP's are a helpful part of having an operating grease interceptor and can reduce costs from number of cleanings that are required and help prevent costly backups. The following are examples of common BMP's:

- Implement a training program to educate kitchen staff and other employees about how they can help ensure kitchen BMP's are followed. People are more willing to support an effort if they understand the basis for it
- Post NO GREASE signs above sinks and on the front of dishwashers. The signs will serve as a constant reminder for staff working in the kitchens.
- Always use sink basket strainers to collect food wastes
- Dry-wipe pots and pans and dishware prior to dishwashing. This will reduce the amount of material going to the grease traps / interceptors, which will require less frequent cleaning thereby reducing maintenance costs
- Capture accumulated oil during the cleaning of wok stoves and ventilation/exhaust hoods and dispose of through solid waste procedures after absorbing all free liquid
- Use water temperatures less than 140°F in all the sinks. Temperatures in excess of 140°F will dissolve grease, but the grease can re-congeal or solidify in the wastewater collection system as the water cools

Regulatory Authority
Discharges to the City of Minneapolis sewer system and the construction and maintenance of plumbing systems are regulated by the Minneapolis Code of Ordinances and Metropolitan Council. The Minnesota State Plumbing Code provides regulation of the construction and maintenance of plumbing systems. These regulations can be found at the weblinks below:

Minneapolis Ordinance on Fats, Oil and Grease Control Program

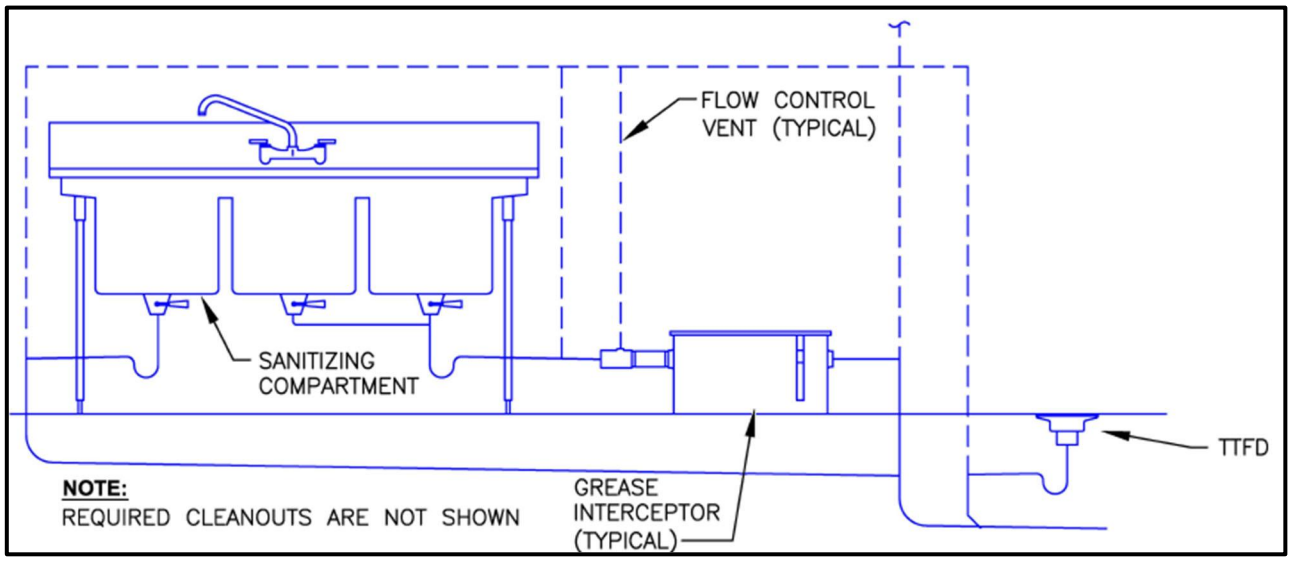
Metropolitan Council Waste Discharge Rules

Minnesota Plumbing Code Section 1014.0 – Grease Interceptors

Minimum Requirements

Where a Type 1 grease hood is required, the following are connected to grease interceptor(s):

- Sinks used to wash dishes- 3 compartment sink



- Prewash station
- Mop sinks
- Other drains where grease is present (kettles, woks, etc.)

Where grease is present, but a Type 1 grease hood is NOT required the following are connected to grease interceptor(s):

- Prewash station
- 3 compartment sinks
- Example of this type of restaurant would include (but not limited to) a restaurant that is serving salads with dressing that goes into the sanitary system. The dressing is composed of oils and fats that will solidify in the sewer system and lead to backups. Restaurants that use non-disposable silverware and/or food preparation equipment (ie pots, pans, mixing bowls) would also be an example.

Where no grease is present

- No interceptor is required
- Example of this type of restaurant would include a coffee shop that has no hood, uses disposable silverware and does cooking via a microwave.

Resource

National Restaurant Association FOG Control Information