

**Tabernash Meadows Water & Sanitation District Rules
and Regulations**

APPENDIX D

**Best
Management
Practices
(BMP)**

Section 1

1. FOG FACILITIES AND POGS FACILITIES

- 1.1 Requirement for Grease Interceptor or Sand/Oil Separator: A grease interceptor or sand/oil separator shall be required when they are necessary for the proper handling of liquid wastes which may be harmful to, or cause obstructions to flow or pass-through, or interference with the proper operation of the wastewater treatment plant.
- 1.2 Variance: Unless a variance has been granted by the District, any property with industrial or commercial uses as of October, 2014 shall be required to install a grease interceptor or sand/oil separator as of such date. Such grease interceptor or sand/oil separator shall be installed as soon as practicable taking into account seasonal weather conditions. It shall be the responsibility of the owner of the property to contact the District for the purpose of obtaining a plan review of all grease interceptor and oil/sand separators. The plan review shall determine the need, method, size and location of the interceptor or separator required to control discharges into the wastewater treatment plant. Written approval from the District must be obtained prior to installation of the interceptor or separator.
- 1.3 Detailed Plans: describing the grease interceptor or oil/sand separator facilities and operating procedures shall be submitted to the District for review, and must be acceptable to the District before such facilities are constructed. The review and approval of such plans shall in no way relieve the owner of the subject property from the responsibility of modifying such facilities as necessary to produce a discharge acceptable to the District under these pretreatment regulations and the District Code, nor shall it relieve the property owner of ensuring proper maintenance and cleaning of the grease interceptor and/or sand/oil separator.
- 1.4 Design & Construction of grease interceptors and oil/sand separators: shall be in accordance with the applicable plumbing and electrical codes and these regulations. The grease interceptor and oil/sand separator shall be designed, sized, installed, maintained and operated so as to accomplish their intended purpose of intercepting pollutants from the subject property's wastewater and preventing the discharge of such pollutants to the wastewater treatment plant.
- 1.5 General Sizing Criteria: The property owner and the District will use general sizing criteria shown in Table 1 to evaluate grease interceptor sizing. Approval of grease interceptor capacity shall in no way relieve the owner of the subject property from the responsibility of modifying such facilities as necessary to produce a discharge acceptable to the District under the provisions of District Code and these pretreatment regulations.

TABLE 1: GREASE INTERCEPTOR SIZING TABLE

GREASE INTERCEPTOR SIZING TABLE			
FIXTURE TYPE	NUMBER OF FIXTURES	SURGE FLOW FROM FIXTURE (GPM)	TOTAL FLOW (GPM)
Kitchen Area Sinks			
Single Compartment	x	20	=
Double Compartment	x	25	=
Triple Compartment	x	30	=
Mop/Clean-up	x	20	=
Dishwashers			
Up to 30 gallon capacity	x	15	=
30 to 50 gallon capacity	x	25	=
50 to 100 gallon capacity	x	40	=
Total Surge Flow for Facility (gpm):			
Detention Time (min):			x 10
Required Minimum Grease Interceptor Capacity (gallons)*			
* Minimum Approved Size is 500 gallons, standard size is 1000 gallons			

1.6 Variance Details: A variance as to the requirement for the installation of a grease interceptor or oil/sand separator may be granted by the District for good cause shown. Variances shall not exceed five years in duration and shall terminate on the earlier of the expiration of the variance, the installation of a grease interceptor or oil/sand separator, transfer of ownership of the subject property or issuance of a building permit for the subject property.

1.6.1 Such grease interceptor or sand/oil separator shall be installed as soon as practicable following the termination of the variance taking into account only delays due to inclement weather.

1.6.2 No certificate of occupancy for the subject property may be issued until a grease interceptor or sand/oil separator required by these regulations has been installed.

1.6.3 The District will evaluate all data and information supporting a request for a variance. The owner of the property required to install the grease interceptor or oil/sand separator shall have the burden of proof on demonstrating through data and other information why a variance should be granted. In no case shall a variance result in violation of any requirement or effluent limit specified in the Code, these pretreatment regulations or applicable law.

- 1.6.4 The granting of any variance shall be at the sole discretion of the District. All variances shall be memorialized by a certificate of variance approved by the District and recorded against the subject real property on the official real property records of the Clerk and Recorder of Grand County, Colorado. The decision of the District in regards to such variance shall be final and non-appealable.
- 1.6.5 If a variance is granted, the owner of the property required to install the grease interceptor or oil/sand separator shall:
- (a) Pay a pretreatment fee to offset the costs incurred by the District for accelerated sewer line cleaning on the District's sewer line providing service to the subject property, costs to the District of treating the excess strength waste and any costs for sampling and analysis. The pretreatment fee shall be set forth in Section 9.
 - (b) Upon change of ownership of any property or any portion thereof required to have a grease interceptor or oil/sand separator, the owner of such property shall have the burden of demonstrating that a properly sized and functioning interceptor or separator is installed.
- 1.7 Toilets, urinals and similar fixtures shall not waste water through a grease interceptor or oil/sand separator. Such fixtures shall be plumbed directly into the building sewer and waste system.
- 1.8 All sink fixtures not equipped with a garbage disposal (garbage grinder) which are connected to a grease interceptor shall be equipped with a fixed or removable mesh or screen which shall catch garbage and food debris and prevent such substances from entering the grease interceptor.
- 1.9 Required Maintenance:
- 1.9.1 Grease interceptors shall be maintained by regularly scheduled cleaning so that they will properly operate as intended to efficiently intercept the fats, oil and grease from the FOG Facility's wastewater and prevent the discharge of said materials into the wastewater treatment plant. A grease interceptor in service in the District shall be serviced when the solid material in the interceptor occupies 25% of the interceptor capacity or 180 days whichever comes first.
 - 1.9.2 Sand/oil separators shall be maintained by regularly scheduled removal of the accumulated sand and oil so that they will properly operate as intended to intercept the sand and oil from the subject property's waste water and prevent the discharge of sand and oil into the wastewater treatment plant. A sand/oil separator in service in the District shall be serviced at a maximum interval of 6 months.
 - 1.9.3 The District may require more or less frequent cleaning. A variance from this requirement may be obtained from the District when the subject property owner can demonstrate less frequent cleaning is sufficient.
 - 1.9.4 Maintenance of grease interceptors and oil/sand separators shall be performed in a workmanlike manner only by professionals normally engaged in the servicing of such plumbing fixtures.
 - 1.9.5 In the event grease interceptor or oil/sand separator is not properly maintained by the owner of the subject property, the District may authorize such maintenance work be performed on behalf of the property owner. The costs of such maintenance shall be billed directly to the customer and shall become part of the charges due and owing the District for sewer service and shall constitute a lien against the property until paid in full.

1.10 Property owners shall:

1.10.1 Ensure grease interceptors and oil/sand separators are easily accessible for inspection, cleaning and removal of grease.

1.10.2 Maintain interceptors and separators at their expense and keep in efficient operating condition at all times by the regular removal of oil, grease and solids.

1.10.3 Document each pump out with a waste manifest or trip ticket that must be kept on site for at least three years.

1.10.4 Take reasonable steps to assure that all waste is properly disposed of at a facility in accordance with federal, State and local regulations (i.e., through a certification by the hauler included on the waste manifest or trip ticket for each load).

1.11 Use of biological additives, enzymes, or surfactants: that could emulsify oil and grease is prohibited.

1.12 Best Management Practices: The District will require these businesses to implement Best Management Practices (BMPs) to minimize the discharge of pollutants to the wastewater treatment plant as described below.

1.12.1 FOG Facilities:

(a) Scrape food from plates into garbage cans.

(b) Pre-wash plates by spraying them off with cold water over a small mesh catch basin positioned over a drain. This catch basin should be cleaned into a garbage can or other solid waste disposal device as needed.

(c) Pour all liquid oil and grease from pots into a waste grease bucket stored at the pot washing sink. Heavy solid build-up of oil and grease on pots and pans should be scraped off into a waste grease bucket.

(d) Utilizing appropriate absorbent materials to contain and cleanup any spillage of grease or oils and disposing of all used absorbent materials as solid waste.

(e) Certify that training for these requirements has been provided to kitchen staff.

(f) Other kitchen practices identified by the District and/or FOG facility which will decrease the point source discharge of oil and grease.

1.12.2 POGS Facilities:

(a) No dumping of petroleum-based waste products into the waste collection system.

(b) Sweeping floors and other service areas with hand brooms and dispose of all sweepings as solid waste to minimize the use of wash down water to the greatest extent practicable.

(c) Utilizing appropriate absorbent materials to contain and cleanup any spillage of petroleum-based products and disposing of all used absorbent materials as solid waste.

(d) Providing certification that all employees have been trained on these practices.

(e) Other practices identified by the District and/or facility which will decrease the discharge of sand and oil.

Section 2

2. GREENHOUSE & GROW OPERATIONS

- 2.1 Purpose for BMP: Greenhouse & grow operations use fertilizers, pesticides and other chemicals that can cause harm to the wastewater treatment plant, or pass-through. BMP for these facilities includes minimizing discharge of chemicals through recycle of irrigation water, rather than discharge to the wastewater treatment plant. Equipment used include holding tanks, mixing tanks, filters, disinfection through chlorination or UV, and process instruments to measure chlorine concentration, specific conductance, nitrate, level indicators in tanks, and flow meters on all process streams. A SCADA system best monitors the process streams and controls chemical feed equipment and recycle pumps.
- 2.2 Cleaning of the product for further production: is a major source of wastewater. BMP include preparing the finished product for processing by physically removing soil and trimming plant growth prior to washing the finished product.
- 2.3 Cleaning operations in the greenhouse production area: should use physical cleaning methods – sweeping and dusting – to minimize wash-down water. When chemicals are required to clean a small area, the cleaning solution should be absorbed in disposable towels. Dispose of the soiled towels as solid waste.