

**City of Manhattan, Public Works Department, Utilities Division
Environmental Compliance Section, Grease Management Program
Best Management Practices (BMPs)
Date: March 8, 2011**

BMP	Description	Reason for BMP	Benefits
Train Kitchen Staff	Train Kitchen staff and other employees about how they can help ensure BMPs are implemented.	People are more willing to support an effort if they understand the basis for it.	All of the other benefits of BMPs will have a better chance of being implemented.
Post "No Grease" Signs	Post "No Grease" signs above sinks and on the front of dishwashers.	Signs serve as constant reminder for staff working in the kitchen.	These reminders will help minimize grease discharge to the traps and interceptors and reduce the cost of cleaning and disposal.
Use Water Temperature Less Than 140° F	Use water temperatures less than 140° F in all sinks, especially the pre-rinse sink before the mechanical dishwasher.	Temperatures in excess of 140° F will liquefy grease, but the grease can solidify in the Sanitary Sewer Collection System as the water cools.	The food service establishment will reduce the energy costs of gas and/or electricity used for heating the water.
Use A Three-Sink Dishwashing System	Use a three-sink dishwashing system, which includes sinks for washing, rinsing, and sanitizing. Water temperatures are less than 140° F.	The three-sink system uses water temperature less than 140° F, where a mechanical dishwasher requires a minimum temperature of 160° F.	The food service establishment will reduce its energy costs of and/or electricity used for heating the water for the mechanical dishwasher.
Recycle Waste Cooking Oil	Recycle cooking oil (yellow grease) used in deep fat fryers.	There are many waste oil recyclers throughout the USA. This is a cost recovery opportunity.	The food service establishment will be paid for the waste material and will reduce the amount of garbage it must pay to have it hauled away.
"Dry Wipe" Pots, Pans, and Dishware Prior to Dishwashing	Dry wipe pots, pans, and dishware with a paper towel prior to dishwashing.	The grease and food that remains in pots, pans, and dishware will likely go to the landfill. By dry wiping and disposing in garbage receptacles, the material will not be sent to the grease traps and interceptors.	This will reduce the amount of material going to grease traps and interceptors, which will require less frequent cleaning, reducing maintenance costs.

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Dispose of Food Waste by Recycling and/or Solid Waste Removal	Dispose of food waste by recycling and/or solid waste removal instead of throwing the solid waste down the drain.	Some recyclers will take food waste for animal feed. In the absence of such recyclers, the food waste can be disposed as solid waste in landfills by solid waste haulers.	Recycling food wastes will reduce the cost of solid waste disposal. Solid waste disposal of food waste will reduce the frequency and cost of grease trap and interceptor cleaning.
Witness All Grease Trap or Interceptor Cleaning and Maintenance	Witness all grease trap or interceptor cleaning and maintenance activities to ensure that the device is properly operating.	Grease trap/interceptor haulers and recyclers may take shortcuts. If the establishment manager inspects the cleaning operation and ensures it is consistent with the proper procedures then they are more assured of getting full value for their money.	The establishment will ensure it is getting fair value for the cost of cleaning the grease trap or interceptor. Otherwise the establishment may be paying for cleaning more often than necessary.
Clean Under-sink Grease Traps Weekly	Clean under-sink grease traps weekly. If grease traps are more than 25 percent full when cleaned weekly, the cleaning frequency needs to be increased.	Under-sink grease traps have less volume than grease interceptors. Weekly cleaning of under-sink grease traps by the establishment's own maintenance staff will reduce the cost of cleaning the grease interceptor. If the establishment does not have a grease interceptor, the under-sink grease trap is the only means of preventing grease from entering the Sanitary Sewer Collection System. If the grease trap is not providing adequate protection, the City of Manhattan Grease Management Program may require installation of a grease interceptor.	This will extend the length of the cleaning cycle for grease interceptors that the establishment maintains.
Clean Grease Interceptors Routinely	Determine the proper cleaning frequency required and clean the grease interceptors in accordance with that schedule.	Grease interceptors must be cleaned routinely to ensure that grease accumulation does not cause the interceptor to operate poorly. The cleaning frequency is a function of the type of establishment, the size of the interceptor, and the volume of flow discharged by the establishment.	Routine cleaning will prevent plugging of the sewer line between the food service establishment and the Sanitary Sewer Collection System. If the line plugs, the sewer line may back up into the establishment, and the business will need to hire someone to unplug it.

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<p>Keep a Maintenance log. (This is only a recommendation and not a requirement).</p>	<p>Keep a written record of all repairing, cleaning, emptying, and hauling activities performed on each grease trap or interceptor.</p>	<p>The maintenance log serves as a record of the frequency and volume of cleaning the interceptor.</p>	<p>The maintenance log serves as a record of cleaning frequency and can help the establishment manager optimize cleaning frequency to reduce cost.</p>
<p>Cover Outdoor Grease and Oil Storage Containers</p>	<p>Cover outdoor grease and oil storage containers to prevent stormwater pollution.</p>	<p>Uncovered grease and oil storage containers can collect rainwater. Since grease and oil float, the rainwater can cause an overflow onto the ground. Such an overflow will eventually reach the Stormwater Sanitary Sewer Collection System and nearby streams.</p>	<p>The discharge of grease and oil to the storm drain system will degrade the water quality of receiving streams by adding biological and chemical oxygen demand to the stream. Discharge of grease and oil to the storm drain might also result in legal penalties or fines.</p>
<p>Locate Grease Dumpsters and Storage Containers Away From Stormwater Drains and Inlets.</p>	<p>Locate grease dumpsters and storage containers away from stormwater drains and inlets.</p>	<p>The farther away from the catch basin, the more time someone has to clean up spills or drainage prior to entering the storm drain system. Be aware of oil and grease dripped on the ground while carrying waste to the dumpster, as well as oil and grease that may “ooze” from the dumpster.</p>	<p>The discharge of grease and oil to the storm drain system will degrade the water quality of receiving streams by adding biological and chemical oxygen demand to the stream. Discharge of grease and oil to the storm drain might also result in legal penalties or fines.</p>
<p>Use Absorbent Pads or Other Material to Clean Up Spilled Material</p>	<p>Use absorbent pads or other material to clean up spilled material around outdoor equipment, containers, or dumpsters. Do not use free flowing absorbent materials such as “kitty litter” or sawdust that can be discharged to the storm drain.</p>	<p>Absorbent pads or materials can help clean up grease and oil that is spilled on the ground and prevent it from flowing to the storm drain system.</p>	<p>The discharge of grease and oil to the storm drain system will degrade the water quality of receiving streams by adding biological and chemical oxygen demand to the stream. Discharge of grease and oil to the storm drain might also result in legal penalties or fines.</p>

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Routinely Clean Kitchen Exhaust Systems	Routinely clean kitchen exhaust system filters, ducts, vents, and hoods.	If grease and oil escape through the kitchen exhaust system, it can accumulate on the roof of the establishment and eventually enter the stormwater drain system when it rains. Proper cleaning and disposal as a solid waste will minimize the potential for stormwater pollution.	The discharge of grease and oil to the stormwater drain system will degrade the water quality of receiving streams by adding biological and chemical oxygen demand to the stream. Discharge of grease and oil to the stormwater drain might also result in legal penalties or fines.
Annual Inspection of All Grease Interceptors and Automatic Grease Removal Devices	All grease interceptors and automatic grease removal devices must be inspected annually by a City-licensed plumber. The results of the inspection shall be reported on a form produced by the City and shall be submitted to the City within fifteen (15) days of the inspection date.	The annual inspection must be conducted to meet the requirement of the City of Manhattan Grease Management Ordinance.	The annual inspection will ensure that all the grease interceptors and automatic grease removal devices operate continually, effectively, and as designed.

These Best Management Practices were adapted from the manual titled "Fats, Oil, and Grease Best Management Practices Manual" published by the Oregon Association of Clean Water Agencies.