

OLIVEHURST PUBLIC UTILITY DISTRICT



FOG Control Program

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FATS, OILS AND GREASE (FOG) PROGRAM BEST MANAGEMENT PRACTICES (BMPs) FOR FOODSERVICE ESTABLISHMENTS

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What is FOG and Why is it Important to My Business?

Residual fats, oils, and grease (FOG) are by-products that food service establishments must constantly manage. Typically, FOG enters a facility's plumbing system from ware washing, floor cleaning, and equipment sanitation. FOG will clog pipes and cause unsanitary spills or overflows to occur in food preparation areas, around a food service facility (e.g., in a parking lot or alleyway), or out on the street near a manhole or sewer access point. Spills and overflows are costly to clean up for businesses and the District, which means less profit for your restaurant, or other food service establishment, and possible fines and other penalties from the District.

Sanitary sewer systems are neither designed nor equipped to handle the FOG that accumulates on the interior of the municipal sewer collection system pipes. The best way to manage FOG is to keep fats, oils and grease out of the sanitary sewer systems.

Some Simple Suggestions to Reduce FOG

Training

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. Through understanding, all subsequent BMPs will have a better chance of being implemented.

Dry Clean-Up

Practice dry clean-up. Remove food waste with “dry” methods such as scraping, wiping, or sweeping before using “wet” methods that use water. Wet methods typically wash the water and waste materials into the drains where it eventually collects on the interior walls of the drainage pipes. Do not pour grease, fats or oils from cooking down the drain and do not use the sink to dispose of food scraps. Likewise it is important to educate kitchen staff not to remove drain screens as this may allow paper or plastic cups, straws, and other utensils to enter the plumbing system during clean up.

The success of dry clean-up is dependent upon the behavior of the employee and availability of the tools for removal of food waste before washing. To practice dry clean-up:

- Use rubber scrapers to remove fats, oils and grease from cookware, utensils, chafing dishes, and serving ware.
- Use food grade paper to soak up oil and grease under fryer baskets.
- Use paper towels to wipe down work areas. Cloth towels will accumulate grease that will eventually end up in your drains from towel washing/rinsing.

“Do not pour grease, fats or oils from cooking down the drain and do not use the sink to dispose of food scraps.”

Signs

Post “No Grease” signs above sinks and on the front of dishwashers. Signs are a constant reminder to kitchen staff that something must be observed, such as those for hand washing or fire danger. Signs will help minimize the amount of material going into grease traps/interceptors and will reduce the cost of cleaning and disposal.

Water Temperature

Keep water less than 140°F in all sinks, especially in any pre-rinse sink in line before a mechanical dishwasher. Temperatures in excess of 140°F in any sink will dissolve grease and send it into the sewer. However, that grease will cool and eventually solidify somewhere down the line in your sewer lateral or the municipal collection system. This will create sewer blockages elsewhere, leading to spills at your facility or overflows nearby. By reducing water temperature, you will save costs for heating that water, reduce the risk of clogging up your sewer lateral, and will save the cost of hiring someone to clean out your pipes.

Food Prep Spill Prevention

Preventing spills reduces the amount of waste on food preparation and serving areas that will require clean up. A dry workplace is safer for employees in avoiding slips, trips and falls. For spill prevention:

- Empty containers before they are full.
- Use a cover to transport grease interceptor contents to a rendering barrel.
- Provide employees with the proper tools (ladles, ample containers, etc.) to transport materials without spilling.

Maintenance

Maintenance is key to avoiding FOG blockages. Grease traps, interceptors or other FOG capturing equipment should be regularly maintained. All staff should be aware of, and trained

to perform, correct cleaning procedures, particularly for under-sink interceptors that are prone to malfunction due to improper maintenance. A regular maintenance schedule is highly recommended. More beneficial maintenance suggestions include:

- Contract with a management company to professionally clean large hood filters. Small hoods can be hand-cleaned with spray detergents and wiped down with cloths for cleaning. Hood filters can be effectively cleaned by routinely spraying with hot water with little or no detergents over the mop sink, which should be connected to a grease trap/interceptor. After a hot water rinse (separately trapped), filter panels can go into the dishwasher. For hoods to operate properly in the removal of grease-laden vapors, the ventilation system will also need to be balanced with sufficient make-up air.
- Skim/Filter fryer grease daily and change oil when necessary. Use a test kit provided by your grocery distributor rather than simply a "guess" to determine when to change oil. This extends the life of both the fryer and the oil. Build-up of carbon deposits on the bottom of the fryer act as an insulator that forces the fryer to heat longer, causing the oil to break down sooner.
- Collect fryer oil in an oil rendering tank for disposal or transport it to a bulk oil rendering tank instead of discharging it into a grease interceptor or waste drain.
- Cleaning intervals depend upon the type of food establishment involved. Some facilities may require monthly cleaning of their grease traps or interceptors; others may need it less frequently. Establishments that operate a large number of fryers or handle a large amount of fried foods (such as chicken), along with ethnic food establishments, may need at least monthly cleanings. Full-cleaning of grease traps (removing all liquids and solids and scraping the walls) is a worthwhile investment. Remember, sugars, starches and other organics accumulate from the bottom up. If sediment is allowed to accumulate in the trap, it will need to be pumped more frequently.
- Develop a rotation system if multiple fryers are in use. Designate a single fryer for products that are particularly high in deposits, and change that one more often.

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Oil and Grease Collection, Recycling and Food Donation

FOG, especially yellow grease, is a commodity that, if handled properly, should be treated as a valuable resource. Yellow grease, or "tallow," as it is sometimes referred to, is cooking grease. When heated and purified, it can be sold to soap, cosmetic, and animal feed companies. When handling your grease, consider the following:

- Some rendering companies will offer services free-of-charge and others will give a rebate on the materials collected.
- Use 25-gallon rendering barrels with covers for onsite collection of oil and grease other than from fryers. Educate kitchen staff on the importance of keeping outside barrels covered at all times. During storms, uncovered or partially covered barrels allow storm water to enter the barrel resulting in oil running onto the

ground and possibly into storm drains, and can contaminate an otherwise useful by-product.

- Use a 3-compartment sink for ware washing. Begin with a hot pre-wash, followed by a scouring sink with detergent, then a rinse sink.
- Make sure all drain screens are installed.
- Prior to washing and rinsing, use a hot water ONLY (no detergent) pre-rinse that is separately trapped to remove non-emulsified oils and greases from ware washing. Wash and rinse steps should also be trapped.
- Empty grill top scrap baskets or scrap boxes and hoods into the rendering barrel.
- Easy does it! Instruct staff to be conservative about their use of fats, oils and grease in food preparation and serving.
- Ensure that edible food is not flushed down your drains. Edible food waste may be donated to a local food bank. Food donation is a win-win situation. It helps restaurants reduce disposal costs and it puts the food in the hands of those who can use it.

Grease Traps/Interceptors

The District's sewer use ordinance requires all businesses that produce FOG to install, operate, and maintain a grease trap or interceptor. Installing or upgrading a grease trap or grease interceptor is a beneficial investment for any food service establishment, given the costly effects of FOG. But before doing so, the following should be considered:

- For grease traps to be effective, the unit(s) must be properly sized, constructed, and installed in a location to provide an adequate retention time for settling and accumulation of the FOG. If the unit(s) is too close to the FOG discharge and does not have enough volume to allow amassing of the FOG, the emulsified oils will pass through the unit without being captured. For information on properly locating, constructing, and sizing grease traps, contact the District's Public Works Department or visit the District's web site at www.opud.org.
- Ensure all grease-bearing drains discharge to the grease trap. These include mop sinks, woks, wash sinks, prep sinks, utility sinks, pulpers, dishwashers, pre-rinse sinks, can washes, and floor drains in food preparation areas such as those near a fryer or tilt/steam kettle. No toilet wastes should be plumbed to the grease trap.
- If these suggested best management practices do not adequately reduce FOG levels, the operator may consider installing a second grease trap with flow-through venting. This system should help reduce grease effluent substantially.

Consumer Tip

Buyer beware! When choosing a method of managing your fats, oil, and grease, ensure that it does what the vendor says it will do. Some technologies or "miracle cures" don't eliminate the problem but result in grease accumulations further down the sewer line. "Out of sight" is not "out of mind." Check the vendor's references.

Contact Information

Please contact the District's Public Works Department at 530-743-8132, or by E-mail at fogcontrol@opud.org, for more information or to discuss your particular FOG situation. We're here to help you succeed!

SUMMARY BEST MANAGEMENT PRACTICES (BMPs) FOR FOOD RELATED FATS, OILS AND GREASE

| BMPs | REASONING | BENEFITS |
|--|--|---|
| Train all staff on BMPs. | People are more willing to support an effort if they understand the reasons behind it. | Trained staff will be more likely to implement BMPs and work to reduce grease discharges to the sewer. |
| Post "No Grease" signs above sinks and on the front of dishwashers. | Signs serve as a constant reminder for staff working in kitchens. | Reminders help minimize grease discharge to the sewer or grease removal device. |
| Check grease interceptor solids depth routinely. The combined thickness of the floating grease and the bottom solids should not be more than 25% of the total interceptor depth. | Grease interceptors will not meet performance standards when solids and floating grease levels exceed 25%. | This will keep grease interceptor working at peak performance. |
| Collect and recycle waste cooking oil. | These actions reduce grease loading on grease removal devices and the sewer. | This will reduce cleaning frequency and maintenance costs for grease removal devices and reduce the amount of grease entering the system. |
| "Dry wipe" pots, pans, and kitchen equipment before cleaning. | "Dry wiping" will reduce the grease loading on grease removal devices and the sewer. | This will reduce cleaning frequency and maintenance costs for grease removal devices and reduce the amount of grease entering the drain. |
| Maintain a routine grease trap cleaning schedule. | If grease traps are not routinely cleaned, they do not work properly and do not prevent grease from entering the sewer. If the grease trap is not providing adequate protection, a grease interceptor may be required. | This reduces the amount of grease entering the drain and protects sewers from grease blockages and overflows. |
| Use absorbent paper under fryer baskets. | This reduces the amount of grease during cleanup. | The amount of grease entering the drain is reduced, which protects the sewer system from grease blockages and overflows. |
| Use absorbents, such as paper towels and cat litter, to pick up oil and grease spills before mopping. | Decreases the amount of grease that will be put down the drain. | Reduces the amount of grease entering the drain and protects sewers from grease blockages and overflows. |
| Do not use emulsifiers or solvents other than typical dishwashing detergents. | Emulsifiers and solvents will break down grease causing a problem downstream in the sewer. | Allows for proper removal of grease. |