

Fat-Free Sewers

**How to Prevent Fats, Oils,
and Greases from
Damaging Your Home and
the
Environment**



Fats, Oils, and Grease



What is FOG?

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. Sanitary sewer systems are neither designed nor equipped to handle the FOG that accumulates on the interior of the sewer collection system pipes. The best way to manage FOG is to keep material out of the plumbing systems.

The Results can be:

- ◆ Raw sewage overflow in your home or neighbor's home.
- ◆ An expensive cleanup.
- ◆ Potential contact with disease-causing organisms.
- ◆ Raw sewage overflow into parks, yards and streets.
- ◆ An increase in operation and maintenance costs for local sewer departments which results in higher sewage bill.



What you can do to help:

- ◆ Never pour grease or oil down the sink or toilet
- ◆ Scrape grease material and food scraps from all cookware
- ◆ Use strainers in sink drains to catch food scraps and empty the drain strainer into the trash
- ◆ Do not put grease or greasy food in your home garbage disposal
- ◆ Wipe cookware and dishes before washing
- ◆ Clean kitchen exhaust system filters routinely
- ◆ Talk with friends and neighbors about grease problems so that the community is aware



Tips for Restaurants

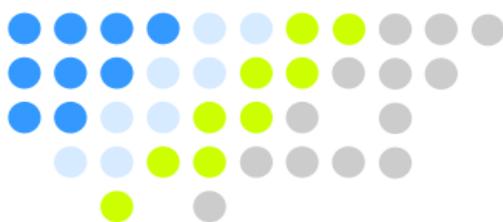
- ◆ Train employees to properly handle used fat, oil and grease
- ◆ Dispose of all fat, oil and grease in an appropriate recycling bin
- ◆ Install a grease interceptor or grease trap
- ◆ Have an approved grease and oil removal company maintain your grease interceptor

Tips for Automotive Sector

- ◆ Use non-toxic soap to clean the floor
- ◆ Perform vehicle maintenance where there are no floor drains
- ◆ Use containers that are in good condition to store waste materials
- ◆ Do not leave full drip pans lying around
- ◆ Make sure oil storage containers are marked and leak free
- ◆ Provide special bays for engine cleaning

Fats, Oils, and Greases aren't just bad for arteries and waistlines; they're bad for sewers too.

Sewer overflows and back-ups can cause health hazards, damage home interiors, and threaten the environment. An increasingly common cause of overflows is sewer pipes blocked by grease. Grease gets into the sewer from household drains as well as from poorly maintained grease traps in restaurants and other businesses.





Rancho California Water District

For additional information call
(951) 296-6900 or visit
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RANCHO CALIFORNIA WATER DISTRICT

Sewer System Management Plan

PUBLIC OUTREACH PROGRAM FOR FOG CONTROL PROGRAM

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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. Sanitary sewer systems are neither designed nor equipped to handle the FOG that accumulates on the interior of the sewer collection system pipes. The best way to manage FOG is to keep the material out of the plumbing systems. The following are suggestions for proper FOG management.

GENERAL PREVENTION

- Never pour grease or oil down sink drains or toilets.
- Scrape grease material and food scraps from all cookware and dishware into a can or the trash for disposal.
- Use strainers in sink drains to catch food scraps and other solids, and empty the drain strainers into the trash for disposal.
- Don't put grease or greasy food in your home garbage disposal. These units only shred solid material into smaller pieces and do not prevent grease from going down the drain.
- Wipe cookware and dishware prior to washing. Don't rely on commercial additives in detergents to dissolve grease: They may just pass it down the line and cause problems in other areas.
- Clean kitchen exhaust system filters routinely.
- Talk with your friends and neighbors about the grease problem so that the community is aware of the risk.

TIPS FOR RESTAURANTS

- Train all employees to properly handle used fat, oil and grease.
- Post "No Grease" signs over sink and floor drains.
- Dispose of all fat, oil and grease in an appropriate recycling bin.
- Keep drains clean by using vinegar and warm water or commercial products to dissolve grease. Be cautious of chemicals and additives that claim to dissolve grease. Some additives simply push the grease farther down the pipe.
- Install a grease interceptor, grease trap, or oil/water separator that is sized to handle the grease or oil produced at your business.
- Have an approved grease and oil removal company regularly maintain your grease interceptor or oil/water separator. Keep records of when your equipment is cleaned.

GREASE INTERCEPTORS AND TRAPS

Grease interceptors and traps are designed to prevent grease, oil, solids and other debris from entering the waste stream, where it becomes a problem by clogging sewers and disrupting the water flow in the system. They capture those wastes and contain them until a waste hauler or pumper service can properly remove them. The following are suggestions for grease interceptors and traps maintenance:

- A grease trap should be checked quarterly and maintained to ensure it is properly working.
- Interceptors may be inspected by the RCWD Pre-Treatment staff throughout the year. They should be monitored closely and have a consistence pumping schedule to ensure proper operations.
- Backups, odors and drainage problems are all signs that a grease trap is not functioning as it should.
- Train all staff on the location, purpose, function, and proper maintenance of grease traps on an annual basis or more frequently, dependent upon staff turn over.
- The most important management procedure for grease traps is that a company representative be present during any cleaning, pumping or skimming performed by a vendor.

DRY CLEAN-UP

Practice dry cleanup. 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 sinks 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.

SPILL PREVENTION

Preventing spills reduces the amounts 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 to avoid spills.
- Use a cover to transport interceptor contents to rendering barrel.
- Provide employees with the proper tools (ladles, ample container, etc.) to transport materials without spilling.

TIPS FOR THE AUTOMOTIVE SECTOR

Employees need to be trained before they begin handling and disposing of hazardous materials, and they need to be re-trained whenever new procedures or new equipment is implemented.

FLOOR CLEANING

- Keep the floor clean - catch leaks and place the liquid in appropriate containers.
- If a small spill occurs, clean it up immediately with industrial absorbent material or shop towels. (Never clean spills by hosing them down with water).
- Use dry floor cleaning methods. (This includes sweeping and vacuuming).
- Use non-toxic soaps to clean floors (pH 5.5 to 9.5).
- If you wash the floors with water, ensure wastewater is collected and heavy metals and grease are removed before the water is discharged to the drain.

FLOOR DRAINS

- Perform vehicle maintenance in areas where there are no floor drains.
- If there are floor drains present in work area, seal them off or cover with absorbent pads during work to prevent spills from entering drains.
- Never have floor drains present in areas where hazardous material is stored or ensure that the drains are sealed.
- All floor drains should be sealed unless connected to a holding tank, a sump or an oil/sand separator.
- Shop wastes should never be drained into a storm drain, the sewer system, surface water or onto the ground.

WASTE MANAGEMENT

- Waste fluids include motor oil, power steering fluid, transmission fluid, brake fluid, antifreeze and coolant.
- Use containers that are in good condition to store waste and replace leaky containers immediately.
- Label all raw material containers and have MSDS sheets readily available so employees know what they are working with.

- Each station should have separate, labeled containers for each waste, or labeled waste sinks which discharge to appropriate waste holding tanks.
- Never place incompatible wastes in the same containers or in close proximity to each other. They may cause an explosion, fire or corrosion.
- Each service bay should have a waste collection station.
- Always keep container lids or bung holes closed except when filling or emptying containers.
- Carefully transfer vehicle liquid waste directly into the receiving container.
- Put wastes in separate, labeled containers that won't leak or corrode and that are hard to overturn.
- Make sure containers are empty before placing them in the waste disposal bin.
- Post a list detailing how to dispose of different wastes.

DRIP PANS

- Do not leave full drip pans or other open containers lying around.
- Place a drip pan underneath vehicles and equipment when performing maintenance such as removing parts, unscrewing filters and unclipping hoses.
- Place dirty parts in drip pans instead of on the floor.

OIL AND OIL FILTERS

- Used oil includes crankcase oil, metal-working oil, gear oil, transmission fluid; brake fluid and hydraulic fluid.
- Keep used oil in a separate, marked, watertight, rodent-proof container in a secure place.
- Make sure your used oil storage tanks or drums have proper containment in case of a spill or leak.
- Routinely inspect vehicles and equipment for leaks and inspect incoming vehicles for leaking oil and other fluids.
- Place drip pans underneath leaking vehicles to collect dripping oil. Don't forget to pour the oil from the drip pan into a used oil drum.
- Try to prevent spills when servicing vehicles. If a spill occurs clean it up immediately with rags. Wring out the oil into the used oil drum.
- Place a drain rack over a waste oil sink to drain and collect the residual oil from parts/containers prior to disposal.
- Puncture oil filters with a nail, drain the filter for at least 24 hours, then crush and recycle the filters.

- Keep drained filters in a separate container marked "used oil filters only".
- Never dispose of used oil down a storm drain, septic tank, dry well, sewer or in a dumpster.
- Never pour oil on the ground, even for dust suppression.

SHOP TOWELS

- Shop towels and clothing that have come in contact with hazardous waste need to be sent to a commercial or non-commercial laundry or to a dry cleaner to be cleaned. If they are sent to one of the above places they do not need to be disposed of as a Special Waste.
- Never use disposable paper towels or rags.
- Use cloth towels that can be cleaned and used again.
- Send your shop towels to a laundry or dry cleaning service.

SPILL PREVENTION, CLEAN-UP AND RESPONSE

- Keep emergency spill equipment and clean-up kit(s) in areas where there is a potential for spills.
- Keep MSDS forms in an accessible location.
- Designate one person to be in charge in the event of a spill.
- Contain the spilled material to prevent it from reaching drains.
- Immediately apply absorbent to spilled material.
- Provide detailed instructions for employees regarding clean-up procedures, including how to handle fires and explosions.
- Instruct employees to report spills immediately including the material type, approximate volume and drainage system it had entered.

ENGINE CLEANING

- Forbid washing of engines, undercarriages or truck cargo bays, mounted equipment and tanks that may contain metals or toxic materials in the regular wash lane.
- Provide special bays for washing or steam cleaning engines, undercarriages, truck-mounted equipment, truck cargo bays, truck-mounted tanks and heavy equipment.
- Make sure that there are no drains in the washing area.
- Alternatively, place a temporary plug over the storm drain and direct the wastewater to an oil/water separator.
- Use a designated area with a covered concrete spill containment pad for all vehicle washing.

- Place signage in the wash area indicating that it is a wash area and other maintenance activities are prohibited (e.g. oil changes).
- Aromatic and chlorinated hydrocarbon solvents should be eliminated from washing operations (check MSDS sheets).

CLEANING PRODUCTS

- Buy from suppliers who accept materials and containers back for recycling.
- Use biodegradable, phosphate-free, water-based cleaners.
- Use pH neutral cleaners to minimize dissolving metals.
- Avoid the use of halogenated compounds, petroleum-based cleaners or phenolics if at all possible; use water-based cleaners.

ALTERNATIVE CLEANING METHODS

- Use a spray with flow restricted, spring loaded triggers and monitor to minimize wash water use.
- Use waterless hand cleaners.
- Try using safe cleaning alternatives such as baking soda and vinegar.
- Forbid the use of customer-supplied detergents, soaps and chemicals to avoid pollution, unknown chemical reactions and interference with oil/water separators and metals traps.
- Keep the use of soaps and non-foaming detergents to a minimum since they reduce the efficiency of oil/water separators.
- Rather than using detergents, use hot water/steaming methods to remove oil from engines, tools and equipment (treat wastewater before it is released to the drain).
- Use non-solvent cleaners.
- Use non-chlorinated compounds rather than chlorinated (as they are less toxic, disposal costs are less expensive).