



## Facilitator — August/September 2011



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### Keeping FOG at Bay

Susan Daywitt

The business impact of managing food-related grease

If you are in the food business, you are certainly no stranger to food-related grease and solids, known as FOG. Managing it effectively has been on your agenda since day one; however, due to greater environmental awareness, tightening regulations and more robust enforcement, the stakes are higher than ever.

#### Why Grease is a Problem

When large volumes of FOG enter sewer pipes, they solidify and accumulate, much like a heart attack within the pipes of the wastewater system. If the pipe becomes completely clogged, sewage backs up into homes and businesses, onto the streets and into storm drains that lead to the ocean.

Because restaurants and other food service establishments are the primary sources of fats, oils and grease in the sewer system, local authorities are clamping down by creating stricter codes and regulations and enforcing them more aggressively. Failure to comply means hefty fines and even business closures.

While FOG is the source of the problem, two other measures are significant to the discussion and critical to your compliance.

Biochemical oxygen demand, or BOD, represents the amount of oxygen that is used or depleted by the bacteria, chemicals and other contaminants that are discharged into the wastewater. Biology 101 teaches us that oxygen is required for sustaining aquatic life, so any depleted oxygen must be replenished through the wastewater treatment process before the reclaimed water can be released back into local waterways. The higher the BOD content coming into a treatment plant, the more energy it takes to treat and restore oxygen into the reclaimed water.

Total suspended solids, or TSS, are the solid particles that are suspended in wastewater that do not settle out (the food- and greaserelated solids in FOG). TSS in wastewater is mostly organic and can serve as refuges for harmful bacteria and other microorganisms. It also can limit the amount of sunlight reaching aquatic plant life, which can disrupt photosynthesis, an essential process to life.

#### The Changing Face of Managing Grease

Grease is typically handled through the use of a grease trap or grease interceptor. The devices contain FOG before ultimately discharging water into the sanitary water and sewer system. Poorly or unmaintained grease traps result in excessive grease buildup, which can cause a host of problems and significantly affect the bottom line. One of these problems is the buildup that pushes through to the main sewer lines and causes problems at the municipal wastewater treatment plants.

Recently, the fees and surcharges for excessive FOG, BOD and TSS discharges have increased, and enforcement of these regulations is far more aggressive. Whether the uptick is the result of greater environmental awareness or budgetary pains experienced by all government offices nationwide as they see a potential revenue source, the outcome is the same: food establishments and producers that account for the largest portion of this type of waste are under increased scrutiny. Managed incompletely or ineffectively, it can mean significant harm to the bottom line and a company's reputation.

#### The Business Impact

The impact on municipalities has been severe. Fines and emergency service calls cost millions of dollars and are

a regular occurrence as FOG gums up the wastewater system. Consider incidents like these: a \$7 million fine in Colorado in April 2011, \$3 million per year in service calls in Sacramento, Calif., area and the City of Columbia, S.C., spending \$1.5 million to clean up grease overflows and stoppages annually.

Who ultimately pays for these increased costs? You, as an industry that discharges large amounts of FOG, in the form of surcharges, permits, fees and fines.

Discharge permits and surcharges are costly enough, and even though they are a typical cost of doing business, you still want to minimize them. These fees are determined by local authorities and vary from flat fee (per number of grease traps) to quantity based (discharge of FOG, TSS or BOD by the pound) or some combination of flat plus variable fees.

What can hurt your business even more are fines. Fines are costly and growing every year. It is not uncommon for companies and facilities with industrial wastewater discharge or permit violations to be subject to fines of up to \$10,000 per violation per day. In addition, dischargers are usually liable for any damages and additional costs caused by their discharges. Then additional fees are incurred for the necessary post-violation inspection and monitoring. (View an example of fines and fees from King County, Seattle, Wash.)

Facilities should always check with their local sewer agency to learn about its billing practices and any additional charges.

#### Obstacles to Effective Management

One of the main challenges of managing grease effectively is the fact that there is no common standard for grease trap codes, national guidelines or even statewide regulations. Grease management requirements are usually dictated by the county, city or municipality and are often difficult to find through online resources or multiple phone calls to the government offices. It is very time-consuming research as this information is found in different places depending on geographical location.

Add to this a confusing rate structure for fees, permits and surcharges and the inevitable difficulty in deciphering your utility bill; it can be hard to determine the true cost of your grease management. If you experience an unfortunate situation where a fine is incurred, it can be even more difficult to identify the additional costs related to any violations.

Implementing a comprehensive and effective total grease management plan, reducing costs associated with preventative maintenance and mitigating risks related to violations is a full-time job. You need to be an expert and coordinate numerous efforts, including:

Proper design and installation of grease traps/interceptors suitable for your facility.

Regular preventative maintenance of grease traps, which should include complete pump-out on a scheduled basis.

Disposal and/or recycling of the waste from preventative maintenance activities.

Meticulous recordkeeping of maintenance performed by trained experts.

Understanding permits and fees and staying abreast of changes.

Comparing stated permits, fees and charges to actual bills.

Reducing, mitigating and understanding any fines you might incur and subsequent follow-up.

Some cities are now requiring comprehensive written grease trap plans. Do you have one? Is it up to date?

There are a lot of moving parts to effective grease management and minimizing related costs, and this is not even part of your core business!

#### Solutions for Risk Management and Cost Reduction

One way facilities ensure compliance and peace of mind with respect to grease code compliance, as well as overall grease management, is by engaging a third-party grease specialist to manage the process.

It is a great advantage to hire someone with thorough knowledge of the codes and guidelines to coordinate, execute and thoroughly document regularly scheduled maintenance. The right vendor company not only manages the full grease process but also can assist in the process of monitoring bills and reducing the cost impact of fines to your business.

Some of the ways in which they do this are:

Comprehensive service that includes pumping the grease trap, as well as ongoing monitoring of charges to ensure what you are paying matches what is dictated in the schedule of fees.

Complete documentation of all preventative maintenance and testing to proactively mitigate the risk of potential fines.

Investigation and resolution of inaccurate surcharges or penalties.

The advantage of having a third-party expert manage the entire process is deep expertise nationwide, specific attention given to the details of your billing and focused commitment to effective grease management because grease is the core competency of their business.

**It's Your Choice**

In the food business, grease is here to stay, and costs for managing it are expected to rise. It's up to you to choose the best options not only for your bottom line but also for the environment.

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