

Grease is clogging sewers Nationwide

Grease is clogging sewers nationwide, creating a costly mess to clean up and a dilemma for officials and regulators. Recently, the Wall Street Journal reported that 75 percent of the sewer systems in the United States work at only half capacity because of grease clogs. The cost of keeping sewers open, a cost borne by taxpayers at a local level, is \$25 billion per year. The increase in grease in sewer lines is a direct result of the phenomenal growth in dual-income households who choose to eat out or take-out rather than cook at home.

- James M. Russell

Grease is clogging sewers nationwide, creating a costly mess to clean up and a dilemma for officials and regulators. Recently, the Wall Street Journal reported that 75 percent of the sewer systems in the United States work at only half capacity because of grease clogs. The cost of keeping sewers open, a cost borne by taxpayers at a local level, is \$25 billion per year. The increase in grease in sewer lines is a direct result of the phenomenal growth in dual-income households who choose to eat out or take-out rather than cook at home.

According to the National Restaurant Association's 2001 Industry Forecast, total restaurant-industry sales have grown every year for the past 10 years and are projected to reach a record \$399 billion in 2001. This growth, combined with the chronic problems of measuring grease to sewer spillage, will continue to plague our sewer systems. Industrial areas also are facing grease clogs in their main sewer lines due to various industry activities, such as meat production and packing.

Grease clogs in a sewer line decrease the flow through the lines and compromise system performance. According to Wayne Sobieralski of the California State Water Resources Control Board, "The number one cause of sewer overflows in Southern California is grease blockages."

In Boston, a 300-foot grease ball with a 36-inch diameter clogged the sewer line under the famous Faneuil Hall area. Across the country and around the world, cities and towns are struggling to manage the growing grease problem.

Current Regulations Are Difficult to Enforce

No matter if you live in a rural area that relies on septic systems or in a city with sewers, regulators are responsible for overseeing local establishments that are major contributors to the grease problem. The primary challenge for these regulators is to develop programs and solutions that are effective. This means that they will ensure and document compliance with codes. Solutions looked at by municipalities include mandatory pumping cycles, monitoring and fines for offenders. Many areas also have reduced the amount of time between mandatory pumping cycles. Voluntary inspections every 30 days are required in some communities, but they are hard to enforce and infrequently done. Many cities are rewriting their codes to require the use of new technology as it becomes available.

One thing is for certain, given the magnitude and cost of the problem, cities are cracking down. Boston's current grease trap regulations call for mandatory pump-outs every 90 days. New regulations in Atlanta impose fines of up to \$1,000 per day and a mandatory 60 days imprisonment for violation of the local code.

In California (anticipating more stringent EPA regulations), state, regional and local teams are collaborating to implement a comprehensive program to optimize capacity, management, operations and maintenance (CMOM) of all collection systems.

In St. Petersburg, Fla., a new ordinance is being written that provides an incentive for proactive oil and grease management. Restaurants will be required to pump their tanks every 30 days if they have a garbage disposal and every 60 days if they do not have a garbage disposal attached to their tanks. This is unless they receive a waiver from the city showing that they are maintaining proper tank levels. In addition, the city may advocate continuous monitoring at each location to provide immediate and historical data on tank and trap performance and maintenance.

Perspectives on the Problem

Regulators

The outside grease trap/grease interceptor system of wastewater treatment has been in use for more than 50 years. Historically, studies consistently have shown that periodic grease tank inspections are a vital part of proper system maintenance programs, but how frequently should tanks be inspected and pumped?

Manual inspections are costly and time consuming. Inspection requires locating the tank, removing the access cover and then inserting a "sludge judge" or crude measuring device into the tank. The measurement of the sludge, grease and liquid levels relative to the outlet tee allows them to calculate the thickness of the solids. This method is costly and time consuming, not to mention messy, smelly and, in many cases, dangerous. It also is difficult to manage on a consistent basis due to the shortage of inspectors and the growing number of businesses and facilities that must be checked. Given the costs, manpower and the sheer volume of inspections required to ensure compliance, control of the grease problem by inspection is impractical.

For example, there are 10,000 restaurants in Los Angeles and a staff of 17 enforcement personnel. It takes the enforcement team two to three years to inspect every facility. However, mandatory pumping is not a viable long-term solution either.

Service Providers

Some service providers do not properly pump tanks and traps when called in for service. In some instances, grease and solids actually have been introduced into the tanks by the pumper. As the cost to dispose of grease continues to rise due to the elimination of land application processes and the refusal of more and more treatment plants to process trap grease, the price to dispose of grease is driven up. In many cases, pumpers are forced to travel great distances to find a facility that will process the grease. Pumpers looking to cut cost and dispose of less may skim the top grease and leave bottom solids.

Restaurants

Although pumpers may be responsible for some of the grease problem, they are not responsible for restaurants and facilities that are out of compliance because they just do not service their tanks and traps or because they do not comply with best waste disposal practices. These food service facilities are responsible for staying within guidelines and pay fines for violations.

Source: *Water Engineering & Management* March 2002 Vol: 149 Num: 3
Copyright © 2004 Scranton Gillette Communications