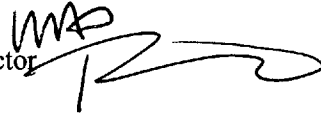


**PUBLIC WORKS DEPARTMENT**  
**MEMORANDUM #09-37**

**DATE:** August 27, 2009

**TO:** Honorable Mayor Kathleen M. Novak and City Council Members

**FROM:** William A. Simmons, City Manager  
David Willett, P.E., Public Works Director  
Karl Heil, Chief Plant Operator



**SUBJECT:** FOG (fats, oils and grease) Program for the Sanitary Sewer System

**BACKGROUND:**

Fats, oil, and grease (FOG) are problematic for any collection system. Recent Environmental Protection Agency (EPA) literature says forty-three percent of all sewer backup is caused by pipe blockage which is mainly attributable to excess grease. FOG gets into the collection system from food service establishments, household drains, and certain industries (meat processing, rendering plants).

The City approaches the management of FOG three ways: 1) preventing FOG from entering the sewer system, 2) manage FOG once it enters the system, and 3) manage the FOG entering the treatment facility. Preventing FOG from entering the sanitary sewer system is addressed through the Northglenn's Industrial Pretreatment Program. Maintenance of FOG in the sanitary sewer system is managed by the Utility Crew. Lastly FOG entering the treatment facility is addressed by the treatment facility itself. By dividing the responsibilities between these groups, each can focus on the specialized tasks required to manage the individual components of the overall FOG Program.

Industrial Pretreatment (IP)

The IP program is designed to prevent FOG from entering the collection system through compliance inspections, tracking FOG to a source/establish corrective action, recordkeeping, and best management practices. Compliance inspections are utilized to ensure that all commercial/industrial establishments are properly managing their FOG contributions. Notice of violation is issued to an establishment for non-compliance with the program. The compliance status for each establishment is tracked and placed on a periodic inspection schedule. The City requires that all maintenance records on grease interceptors be maintained on-site to ensure that the interceptor is being properly maintained and operating efficiently. Hauling records are reviewed at the time of inspection to insure the interceptor contents were removed and disposed of properly. In addition, best management practices are utilized to inform commercial and industrial users about the City's program requirements and ways of minimizing FOG contributions to the City sewer system.

Maintenance

The Collection crew manages the FOG contributions within the sewer system by performing regular cleanings, lift station maintenance and inspections of sewer lines. Through cleaning and inspections they identify problem spots for increased maintenance activities. Inspections are performed using the City's TV Inspection vehicle and may be initiated by the IP Program or other City staff observations. Line cleaning is scheduled based on industry standards, problems identified in the inspection process, and historical knowledge of the line segment. Lift stations are cleaned regularly to remove grease, solids, and to check for proper operations. These activities and processes allow the uninterrupted conveyance of wastewater to the treatment facility.

Fats, Oils, and Grease  
August 27, 2009

Treatment

FOG has not been a significant problem at the treatment facility because most of the insoluble greases are captured and removed at lift stations or in collection system. FOG reaching the treatment facility is processed with all other constituents that make up wastewater.

Achievements of the FOG program in calendar year 2009:

1. Regular cleaning of problem areas within the sewer system;
2. Bi-weekly cleaning of lift stations;
3. Quantitative measurement of FOG in interceptors;
4. Development of Best Management Practices;
5. Improved inspection process of commercial/industrial users;
6. TV inspection of four plus mile of sewer lines;
7. Education of commercial/industrial users within the City's sewer service area
8. Coordination between City Departments.

**STAFF REFERENCE:**

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