

INSPECTING FOOD SERVICE ESTABLISHMENTS

On-site monitoring of FSEs is important in terms of setting up a line of communication with the facility operators and emphasizing the importance of preventing FOG discharges. Inspections are also the best way to ensure compliance with ordinance provisions, permit terms and conditions, and FOG handling and disposal practices.

Determine Inspection Approach

To ensure that a consistent message is delivered to all FSE personnel, an inspection program approach should be developed that is tailored to the goals of the FOG Abatement Program. Successful FOG program personnel and industry representatives agree that it is important to bear in mind that education of the FSE owners and operators is essential to program success. This can be achieved through a combination of discussion points and distribution of outreach materials. Discussion points during an inspection may include the negative effects of facility shutdowns due to sewer backups, recommendations for more effective FOG removal equipment saving money through water conservation and avoiding fines for non-compliance.

Train Inspectors

Comprehensive training must be undertaken for the FOG Abatement Program to ensure a consistent approach during inspections. A notebook containing all of the program documents, enforcement procedures, and outreach information should be prepared and distributed to the inspectors during the training session. It may be useful to include a review test inside the notebook. This test could be self-administered and used by the inspectors to personally assess their comprehension of inspection procedures.

The subject of interpersonal communication should also be addressed as part of the training program. This subject could be covered during a seminar with a contracted speaker or through required viewing of a videotape on communication. A segment of the training program may include a module on adversity training. This type of training is done to prepare new inspectors for difficult exchanges with FSE employees and situations when their authority may be challenged.

Additional training that is applicable for inspectors and program managers on grease removal equipment and FOG Abatement program development and management may be found online at The FOG Training Institute (<https://fogtraininginstitute.com>). Many states or jurisdictional bodies approve these educational programs for continuing education credits.

Related educational programs based on broader topics such as collection system maintenance and FOG control in residential areas may also be available through occupational associations, such as the California Water Environment Association, Western States Alliance, Southeastern FOG Alliance, AZ Water Association, and the New England Water Pollution Control Commission (NEIWPCC), to name a few.

Conduct Inspections and Sampling

Inspections of all FSEs within the jurisdiction of a FOG Abatement Program may take years depending on the program goals, number of sites, and inspector staffing. Developing an inspection prioritization plan is vital for determining an effective and functional inspection schedule.

Different priority levels may be assigned to FSEs in order to determine the inspection frequency and/or type of inspection for each FSE. For example, a high priority may be placed on historically noncompliant FSEs or on the FSEs associated with collection system hotspots. Another method of prioritizing the inspection program would be to choose an overall goal, such as establishing a routine maintenance schedule for FSEs with grease interceptors. The inspection frequency would then be determined by the recommended interval between cleanings. Once the priority is determined, an inspection plan (frequency, type of approach, follow-up intervals) should be developed based on available resources and program goals. Sampling of a facility's waste stream may be warranted for compliance purposes.

Inspection Procedures

Initially, FSE knowledge of the existence of the FOG program and the occurrence of inspections may vary greatly. Prior to initiating inspections, a letter (language-specific if possible) and educational outreach should be sent to the facility operator to introduce the program and inspection process. This letter should be signed by the highest level of authority related to the FOG program and should include contact names and numbers for the facility operators.

During inspections, inspectors should wear photo badges, arrive in an official municipal vehicle, if possible, and carry a copy of the introductory letter in order to clearly identify themselves and clarify the purpose of the inspection. Inspections may be announced or unannounced, depending on the regulatory framework of the agency or the type of relationship maintained between the inspectors and the FSE operators. Two tables developed based on the experiences of FOG Abatement Program Inspectors follow. A list of recommended equipment and paperwork to carry on inspections is presented below.

Equipment	Paperwork
Maps (County, City, GIS)	Inspection Checklist, FSE File
Manhole Pick	List of Plumbers (with disclaimer)
Hydrogen Sulfide gas detector ¹	
Depth Probe	List of Grease and Oil recyclers
Ratchet Set	Method of Documenting Inspection Results (e.g., PDA or inspection form)
Pipe Wrench (to open cleanouts)	
Mirror (for looking inside manholes and interceptors)	BMP List and Brochures

Cell Phone with Camera	Manufacturer's Drawings (for the type of grease removal device to be inspected)
Steel Toed Shoes	
Gloves/Safety Glasses	
Sample Bottles and Sampling Equipment	Authorized list of grease haulers (with disclaimer)
Fluorescent Safety Vest	

¹An important safety consideration when performing inspections is measurement of the concentration of atmospheric hydrogen sulfide. Harmful hydrogen sulfide concentrations may exist at grease interceptor access points, collections system manholes, and/or lift stations.

A checklist for areas to inspect and questions to consider during an inspection is presented below.

Inspection Activities
Request copies of receipts from grease handlers for services completed since the last visit.
Inspect grease removal equipment and cleaning logs to determine if the equipment is being operated and maintained properly.
Inspect connections to the grease trap or interceptor to ensure that only authorized equipment and fixtures discharge to the device.
Check for evidence of illicit dumping such as debris/loose screws in floor drains, missing or altered log entries, use of vegetable sink for washing dishes (vegetable sinks are not usually plumbed to a trap or interceptor).
Spot check for evidence of BMP implementation (scraper for dishes, spill kit, BMP poster, training log, drain screens, grease bins, etc.).
Collect samples for laboratory analysis of FOG concentration, if necessary.
Determine how waste grease is collected from work stoves, deep fat fryers, and grills.
Inspect grease barrels to determine if grease is being stored properly.
Discuss cleaning methods for roof vents and vent hoods. If they have a self-cleaning hood, where does the washwater discharge?
Request copies of receipts detailing pickup dates/volumes collected by grease recyclers.

Sampling Procedures

If deemed essential to the FOG Abatement Program's efforts, the effluent from grease interceptors can be sampled to determine the amount of FOG being discharged to the sewer system. A sample of the equipment effluent best represents the nature of the FSE's discharge. Other sampling options that may prove useful include sampling from the collection system just downstream of a suspected FOG discharger or sampling downstream of a complex of restaurants to determine the combined effects of their FOG discharges.

FOG samples must be collected in a muffled (or solvent washed), 1-Liter wide-mouthed glass container, preserved with hydrochloric acid. The samples must be refrigerated immediately after collection. Do not transfer the sample from one container to another, because FOG clings to the inside of sample containers and the transferred sample will not be representative of the FSE's discharge. The laboratory performing the analysis should provide the appropriate glassware with the preservative already added. The recommended method for analyzing total FOG concentration is EPA Method 1664. The method is not concentration-dependent, so no dilution is necessary, and the detection limit is 5 mg/L. The maximum holding time at 24°C is 28 days. If needed, an additional analysis can be performed on the sample to determine the fraction of the FOG that originates from hydrocarbons.

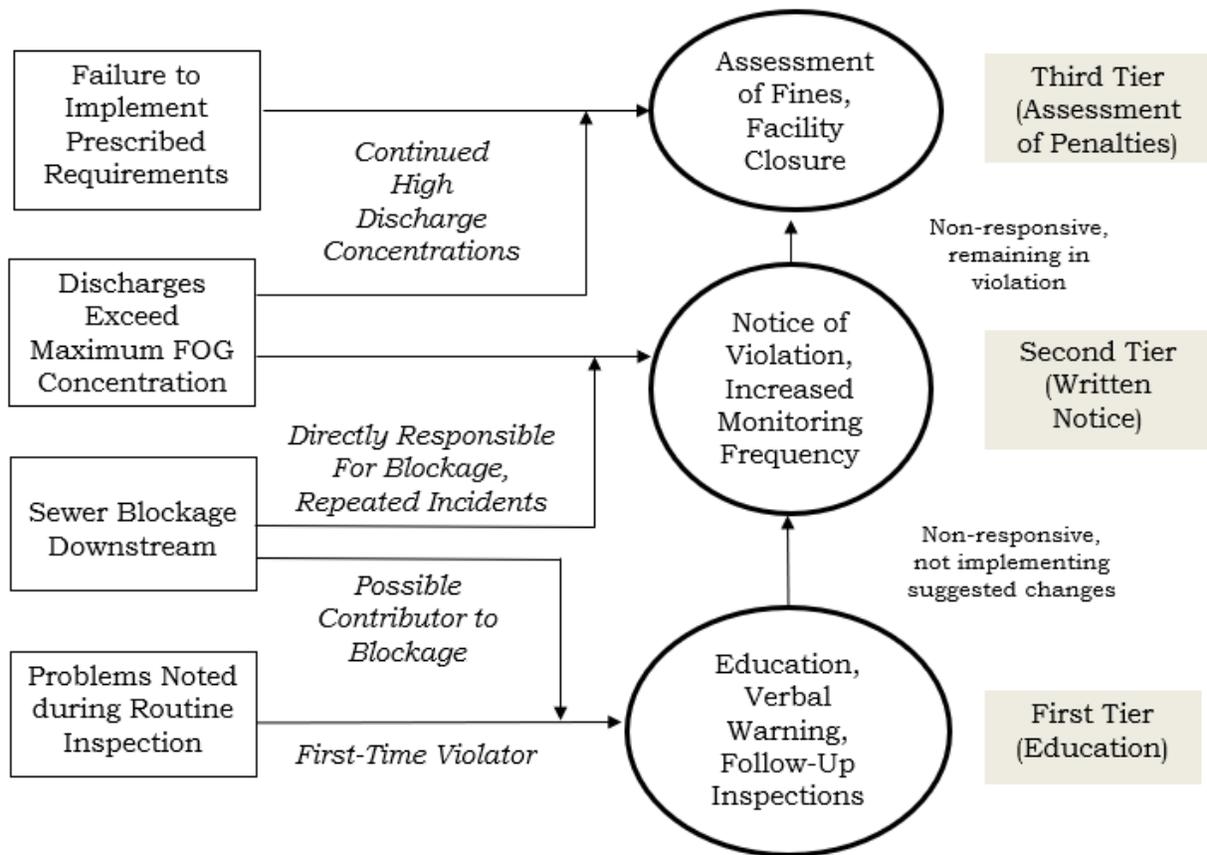
The pH of the waste stream can also be used as an indicator of problem discharges. This characteristic is often overlooked but easily quantified. Use of a portable pH meter during an inspection or sampling event can identify unsafe atmospheric conditions and prevent deleterious effects on the collection system. It is not uncommon for grease interceptor discharges to have a pH around 4, which may violate effluent limits specified in the sewer use ordinance.

Follow-up Procedures

After an inspection is performed, the findings should be immediately recorded in an inspection report, along with a determination of compliance standing for the FSE. An inspection summary letter or a copy of the inspection report may be sent to the FSE. If the FSE is in compliance, that determination should be stated. If the FSE is not in compliance, the actions to be taken should be in accordance with a developed enforcement response plan.

Develop Hierarchy of Enforcement Responses

The hierarchy of enforcement responses will be based on the regulatory approach selected by the municipality, the severity of the violations, and provisions of the Sewer Use Ordinance. A typical enforcement hierarchy is depicted in Figure 2. Initial response to a FOG discharge or improper maintenance of grease control equipment may consist of a follow-up inspection, presentation of educational materials, a verbal warning, and a requirement to correct the problems found.



The second tier of enforcement response may include a Notice of Violation (NOV) or a Notice of Non-compliance which is a written record of the violation and required response. The NOV may include reasons for non-compliance along with required actions, deadlines for compliance, and a notice that a follow-up inspection will occur. These methods might include preparation of a written report to the municipality on how the discharges will be prevented, installation of grease removal equipment, or mandatory attendance at a workshop or a hearing. Periodic monitoring of the facility’s discharges may also be instituted. Measuring FOG concentration may allow the municipality to determine if practical changes are occurring at the facility.

Failure to correct the problem by the time limit prescribed in the NOV may result in additional inspections, mandatory equipment installation, or elevation to the third tier of responses, assessment of fines, or facility closure. The procedures for assessing fines and closing a noncompliant facility must be detailed in the sewer use ordinance.