

## CLIFTON SANITATION DISTRICT INDUSTRIAL WASTE CONTROL ENFORCEMENT RESPONSE GUIDE 8-5-12

## **Introduction**

The purpose of the Industrial Waste Control Response Guide is to document the Clifton Sanitation District's (CSD) policies and procedures in identifying, tracking and responding to sewer use violations. For the purposes of this document and the Pretreatment Program, Industrial Users or Users (IUs) means those non-domestic users as defined in the Federal Pretreatment Program and includes industrial, light commercial, and all other non-domestic users. This Enforcement Response Guide is incorporated by reference into the District's Policies and Procedures. Terms utilized within this guide are defined in Section 5.3 of the District's Regulations. These policies and procedures were developed with four primary objectives in mind:

- ✓ Ensuring that violators return to compliance as quickly as possible.
- ✓ Preventing violations that may cause Pass Through or Interference.
- ✓ Deterring future noncompliance.
- ✓ Recovering expenses incurred by the District due to noncompliance.

The policy is composed of four major sections:

- I. Compliance and Enforcement Responsibilities;
- II. Data Management;
- III. Compliance Inspections/Sampling; and
- IV. Enforcement Actions (formal and informal).

These sections are written so that the following activities are performed:

- ✓ Maintaining a complete information base (data, reports, etc.)
- ✓ Ensuring a systematic flow of compliance information.
- ✓ Accomplishing orderly and consistent compliance screening activities.
- ✓ Initiating inspections and sampling events to monitor compliance status.
- ✓ Performing evaluations to determine appropriate enforcement response to noncompliance.
- ✓ Initiating informal and formal enforcement action and follow-up as necessary.
- ✓ Utilizing information management controls to provide accurate enforcement information at all levels of the District.

## **Section I – Compliance and Enforcement Responsibilities**

## A. Background Information

The purpose of the Industrial Pretreatment Program is to control industrial and commercial wastewater discharges into the District's sewer system. The purpose of such control is to protect the sewers and treatment plant against deterioration, damage and interference caused by pollutants which may be discharged in high concentration, to prevent pass-through of pollutants to the receiving waters, and to prevent interference with sludge disposal practices. The District is implementing a voluntary industrial waste control program and will issue permits on a case-by-case basis.

## **B.** Staffing

The administration of the industrial waste control program involves several basic activities, including:

Budgeting and managing data, identifying Industrial Users ("IUs"), inspecting, receiving and reviewing required reports, monitoring POTW influent and effluent, enforcing against violations, and utilizing Best Management Practices (BMP) programs.

Industrial waste control program activities will be administered by the District Manager or its designee.

The organizational and functional structure of the Industrial Waste Control Program is as follows:

## District Manager

Approves overall program budget
Issues formal enforcement actions (other than a Notice of Violation)
Responsible for overall wastewater treatment plant (WWTP) performance
Responsible for overall collection system
Oversees the Industrial Waste Control Program
Implements program policy

Manages Contracts
Signs Notices of Violation
Maintains first-line managerial liaison with industries
Conducts inspections
Logs samples, maintains chain of custody
Reviews laboratory results
Reviews self-monitoring reports
Manages data and file management
Investigates unusual discharges

## **Attorney**

The District's Attorney or other designated attorneys are utilized by the WWTP for consultation on legal aspects of the Industrial Waste Control Program and for legal support relating to the enforcement of pretreatment regulations and standards.

The above responsibilities will be revised as necessary to adapt to future changes in regulations and numbers of Industrial Users.

## **C. Funding Mechanisms**

A successful industrial waste control program requires adequate funding to ensure that sufficient financial resources are available to implement the program. The costs associated with implementing a pretreatment program include the local share of any capital-related cost and the continuing operation and maintenance (O&M) expenses to keep the program functioning.

The District's program is funded through the general operating budget. The user charge system is the current mechanism used to fund the wastewater treatment plant. Some of the operating costs for the pretreatment program may be recouped through Industrial Waste Control Program fees and fines.

## Section 2 – Compliance Inspections/Sampling

## **A.** Compliance Inspections

The District is not required by EPA to have a formal pretreatment program. Therefore, the District will implement controls on non-domestic users only where needed to protect the wastewater treatment plant and collection system (collectively the publically owned treatment works or POTW), the receiving water, the biosolids and worker and public health and safety.

The frequency and type of inspection shall be determined by the District. Some factors influencing the frequency and type of oversight include: instances of non-compliance, unusual discharge or operational activities, lack of complete information of the processes or activities of the non-domestic user, concerns with WWTP loading of pollutants, and other significant factors.

The District will utilize an "Industrial Waste Survey Form" to require Users to provide information on their activities, process, and wastewater discharge. Where follow-up is required, the District will perform an on-site inspection and provide the User with an "Industrial User Inspection Report".

The District may opt to perform sampling of any User's wastewater. The sample result will be used to determine compliance with applicable Pretreatment Standards and Requirements and to confirm data and other information submitted by Users is accurate.

Users demonstrating a history of noncompliance shall be subject to increased surveillance and may be asked to perform self-monitoring of their effluent. The District may impose fees and penalties to recover costs associated with monitoring.

There are three types of User inspections: scheduled, unscheduled, and on-demand.

## **Scheduled Inspections**

These inspections are scheduled with the User from a week to a month in advance. Notifying the industry in advance helps to ensure that a knowledgeable employee will be available to answer questions and needed records will be readily available for inspection and review. This allows the inspector to use his or her time more effectively during the inspection. Additionally, the inspection can be scheduled for a time when the facility will be in normal operation.

## **Unscheduled Inspections**

These inspections are not scheduled in advance with the User. Little or no prior notice is given, except when minimum notice is necessary to gain access to the facility or to ensure that the facility contact is present. This type of inspection is useful in determining the current compliance status of a User. Unscheduled inspections can also be used as a follow up to scheduled inspection to determine if noted deficiencies have been corrected. These inspections are at the sole discretion of the District. This type of inspection is also used to determine if an industry needs to be considered for permit issuance.

## On-Demand Inspection

On-Demand inspections are conducted in response to known or suspected violations discovered through self-monitoring reports, routine inspections, sampling events, public complaints, unusual influent conditions at the POTW, or emergency situations including plant upsets, sewer line blockages, fires, and explosions.

On-demand inspections will be performed immediately with no prior notice provided to the User. In some cases, assistance from other appropriate agencies (e.g. fire department, hazardous waste response team, EPA) may be required. When the District receives a public complaint about an industrial facility or becomes aware of unusual influent conditions or an emergency situation in the collection system attributable to a particular facility, an on-demand inspection will be conducted.

## **B.** Compliance Sampling Tracking

The District may require Users to conduct compliance sampling. The District may collect additional samples of any user's wastewater or from any point within the collection system. The purpose of sampling is to assess compliance status and to identify potential issues with industrial discharges.

All samples must be collected and analyzed in accordance with EPA approved procedures published in 40 CFR Part 136. Where an approved method does not exist for a particular analyte, the District may designate acceptable methods.

Samples collected by the District may be analyzed at the District's WWTP laboratory or be sent to a contract laboratory. The District maintains a quality assurance / quality control program for laboratory testing. Samples collected by the permittee should be sent to a contract laboratory.

Contract laboratories utilized by the District and permittees are required to maintain a quality assurance/quality control program and QA/QC data must be provided with each laboratory report. If any of the required QA/QC criteria are not met, the proper corrective measures must be taken including recollecting and/or reanalyzing samples as needed.

## **District Sampling**

The District may use a monitoring program which provides for self-monitoring and reporting by industries and review of the required reports by the District to determine compliance with the program. User Agreements, Permits, Specific Notice to the industry, and Best Management Practices (BMPs) establish the industry's reporting requirements and discharge limitations which will be applied to that permittee.

District staff or its representative may schedule routine, unannounced sampling as provided for under the District's Sewer Use Policies and Procedures. Sampling is utilized for independently assessing the User's compliance status. When a sample indicates a compliance problem, the District will resample the User's discharge. The District may collect multiple samples.

## **Industrial User Self-Monitoring**

Permits or Notices of Discharge Requirements issued by the District may contain a self-monitoring requirement for specific pollutants. In addition, Users may have reporting requirements as a part of BMPs. The frequency with which a User is required to self-monitor for a pollutant or report compliance with a specific BMP is based on requirements established by the District.

Compliance data, whether collected by the District or generated through User self-monitoring reports, are systematically analyzed to identify patterns, potential violations, sample collection locations and methods, holding times, method sensitivity, and chain-of-custody issues. The following guidelines are used by the District in reviewing self-monitoring reports from Users:

- 1. The report dates may be checked to verify that the reports have been submitted on time.
- 2. All certification statements as required must be presented.
- 3. Signatures may be checked to verify that the report signer is an authorized representative.
- 4. Reports may be checked to verify presence of the following information:
  - a) Dates and time of sample collection
  - b) Sampling location
  - c) Types of samples grab versus composite
  - d) Type of sampling container
  - e) Type of preservative used, if any
  - f) Name of person collecting samples
  - g) Copy of the Chain-of-Custody
  - h) Consistency of analytical methods with 40 CFR Part 136
- 5. Analytical results may be checked against permit limitations, local limits, and the provisions of Title V to identify any violations or unusual patterns.

## **Section III – Enforcement Actions**

## A. General

Once a violation is identified, the District will determine the appropriate enforcement response. If the violation is significant (serious, recurring, etc.) the District will generally take a formal enforcement action. If the violation is not significant (isolated, minor, etc.) the District will generally take an informal enforcement action. The significance of violations is exemplified in Attachment 1.

## B. Administrative Enforcement Actions

## 1. Informal Violation Communication

The District may notify a user of a violation (minor, isolated) via a phone call, email or on-site visit. This is an informal action. A record of communication for the phone call or copy of the email shall be included in the User's administrative file.

## 2. Notice of Violation (NOV)

The NOV's purpose is to notify the User of the violation(s) and to request that the User explain the cause(s) of the violation and what is being done to prevent a recurrence. It may be the only response necessary for some non-SNC violations but is considered an informal action by the District. Whenever a User is violating or has violated the District's Policies and Procedures, discharge permit, user agreement, BMP condition, or other Pretreatment Standard or requirement, the District will send the User a written NOV (hand delivered, sent via email or by

facsimile transmission, or by registered or certified mail, or by any other reasonable means) describing the nature of the violation and requiring the User, within five (5) days from the receipt of the NOV, to provide a written response identifying the cause(s) of the violation and describing the measures the User will take or has taken to ensure compliance with all applicable discharge limitations and requirements and to prevent recurrence of the violation.

#### 3. Administrative Orders

Administrative Orders (AOs) are formal enforcement actions which direct Users to undertake or to cease specified activities. AOs should be used as the first formal response to significant noncompliance. The District has the ability to utilize several different types of administrative actions.

## 4. Compliance Order

If continued operation of the industrial facility will not cause a significant discharge violation, Pass Through, or Interference, and noncompliance cannot be achieved immediately, the District may issue a Compliance Order asking the User to complete specific tasks by certain dates. Issuance of a Compliance Order does not relieve the User of the obligation to meet its existing discharge limits and requirements, nor does it protect the User from additional enforcement actions by the District, including the imposition of penalties. The Compliance Order simply allows the industry to continue to discharge as long as it demonstrates adequate progress in providing a permanent solution to the cause of its discharge violations. Under no circumstances will the District agree to a compliance schedule that might result in pass-through or interference.

## 5. Consent Orders

A Consent Order is an agreement between the District and the User which may establish a compliance schedule, stipulated penalties, or remedial action. A consent order will be used when the User assumes responsibility for its noncompliance and agrees to voluntarily correct the cause of the violation.

## 6. Show Cause Order

Whenever a violation is not corrected after notification or a compliance schedule deadline has not been met, the District may issue an order to the User to show cause at a hearing before the District's Board as to why the User should be allowed to continue discharge of non-domestic wastewater to the sanitary sewer. The order will specify the time and place of hearing, the proposed action, the reasons why the action is be taken, and will direct the User to explain why the action is not warranted. The order shall be served personally, delivered by email or by facsimile transmission, by registered or certified mail or by any other reasonable means at least ten (10) days before the hearing.

The District's Board may request the attendance and testimony of witnesses and the production of any relevant evidence. After the District's Board has reviewed the evidence, it may issue an order discontinuing service unless the evidence shows that the violation has been corrected. Issuance of a show cause order does not relieve the User of the obligation to meet its existing discharge limits and requirements, nor does it protect the User from additional enforcement actions by the District, including the imposition of penalties.

#### 7. Cease and Desist

A Cease and Desist Order directs the User to immediately correct an illegal discharge or to stop a discharge altogether. A Cease and Desist Order will be issued where a discharge could cause pass through, interference, environmental damage, threaten worker health or safety, or otherwise create an emergency situation.

#### 8. Administrative Fines and Penalties

The District will identify whether or not administrative penalties are supported in consultation with the District Manager. If appropriate, an administrative penalty, signed by the District Manager, will be sent to the User by email, facsimile transmission, registered or certified mail. The District will utilize the EPA penalty guidance for calculating appropriate penalties (INTERIM CLEAN WATER ACT SETTLEMENT PENALTY POLICY, USEPA, March 1, 1995). Some of the considerations for penalty calculations include: economic benefit, magnitude of the violation, duration of the violation, effect of the violation on the environment, effect of the violation on POTW (including the collection system), compliance history of the User, cooperativeness of the User.

## 9. Emergency Suspension for Noncompliance

In situations where an actual or threatened discharge presents or may present an imminent or substantial endangerment to human health, welfare or the environment, or causes interference to the POTW or causes the District to violate its discharge permit, the District Manager may suspend wastewater treatment service without any hearing.

A written suspension order requiring immediate termination of the discharge will be served to the User. If the industry fails to stop or eliminate the discharge immediately, the District will take all necessary steps, including seeking injunctive relief or severance of the sewer connection, to prevent or minimize any damage to the POTW system or endangerment to persons or the environment.

## 10. Revocation of Permit

If the User has a permit, the District may revoke the permit and that User shall no longer discharge industrial or non-residential wastewater to the sanitary sewer system. This is a termination of discharge. The User may be required to demonstrate that all non-residential wastewater is properly disposed of.

## **C.** Civil Enforcement Procedures

Civil judicial enforcement is the formal process of filing lawsuits against Users to secure court ordered action to correct violations and to assess penalties for violations, including the recovery of costs to the WWTP. Civil action is an appropriate enforcement response in several situations:

- ✓ When injunctive relief is necessary to halt or prevent discharges which threaten human health, the environment, or the treatment plant.
- ✓ When efforts to restore compliance through less formal actions have failed and a court supervised settlement (Settlement Agreement) is necessary to enforce program requirements.
- ✓ When a User fails to pay assessed penalties or the District wishes to recover losses due to the User's non-compliance.

## 1. Injunctive Relief

The District may seek injunctive relief for violations of the District's Policies and Procedures. The District has the authority to suspend a User's wastewater treatment service in the event a discharge may cause imminent or substantial endangerment, and injunctive relief may not be necessary to halt or prevent the discharge. Injunctive relief may be necessary, however, if the User refuses to comply with the District's order.

## 2. Settlement Agreement/Consent Order

Settlement Agreements are agreements between the District and the User reached after civil actions have been filed. To be binding, the decree must be signed by the District Manager and the User. Settlement Agreements are used when the User acknowledges and is willing to correct the violations and agrees with the District to a penalty.

## 3. Failure to Pay Penalties/Cost Recovery

Judicial action may be necessary in cases where a User refuses to pay assessed penalties. The District's Policies and Procedures allow discontinuance of sewer service for failure to pay penalties and charges. In addition, the District may pursue judicial action to recover costs incurred as a result of a User's non-compliance, including damages to the treatment plant and

collection system, injury to personnel, increased cost of monitoring and surveillance, and attorney's fees.

#### D. Criminal Enforcement Actions

The District does not have the authority to prosecute criminal cases. The District shall refer to and rely upon EPA and the State of Colorado and any other appropriate jurisdiction to prosecute criminal violations. The District maintains the ability to independently take administrative or civil actions for any violations, including criminal violations.

## Section IV – Enforcement Response Guide

The District will use the Enforcement Response Table (see Attachment 1) as a guideline to determine appropriate enforcement response for various types of violations. The guideline is intended as a quick reference for the District. Based upon the specific situation, the District may alter its response to a violation. Repeated violations of a similar nature may result in a higher level response, e.g. a formal action or financial penalty in place of an informal action. Should the violator fail to respond to any enforcement action initiated by the District, the District may opt to follow-up with any enforcement response that the District deems appropriate. The District may initiate an enforcement response with the any level of action listed in the Table. The District may opt to take an immediate and significant action (penalty action) for a first violation.

The District has developed a specific Enforcement Response Guide governing Fats, Oils and Greases (FOG) (see Attachment 2).

## **ATTACHMENT 1**

Enforcement Response Table

# Enforcement Response Table

Violation	Circumstances	Range of Enforcement Responses
Failure to apply (or reapply) for a permit as after notification by the District that the User is required to do so.	Any Instance	Existing permittees: Termination of Permit and authorization to discharge to the sewer system, administrative action, penalty.  Regulated Users that do not currently have a permit: Administrative action, penalty, civil action, termination of discharge.
Failure to submit an accurate permit application or Industrial User Survey Form.	Any Instance	Informal, NOV, administrative action, penalty, termination of discharge
Failure to submit a complete permit application or Industrial User Survey Form.	Any Instance	Informal, NOV
Illegal or unpermitted discharge	Any Instance	Administrative action, Show cause hearing, penalty, civil action, termination of discharge, referral for criminal action.
Effluent limit violation or a violation of a BMP.	Any Instance	Isolated, Not SNC: informal, NOV  Recurring and/or SNC: Administrative action, Show cause hearing, penalty, civil action, termination of discharge.

		An environmental or POTW impact: Administrative action, show cause hearing, penalty, civil action, injunction, cease and desist, emergency suspension, termination of discharge.
Discharge that presents or may present an imminent or substantial endangerment to health, the environment, personnel, or the POTW.	Any instance	Termination of permit. Termination of discharge (emergency suspension), injunction, cease and desist order.  These actions do not preclude the District from taking additional action, including the imposition of penalties.
Discharge of wastes specifically prohibited in a discharge permit or the District's Policies and Procedures.	Any Instance	NOV, Administrative action, Show cause hearing, penalty, civil action, termination of discharge.
Slug Load	Isolated (No POTW or environmental impact)  Recurring (>1/3 months) or causing a violation of the general and specific prohibitions or a POTW or environmental impact.	NOV, administrative order  Administrative action, show cause hearing, penalty, civil action, termination of discharge.

Failure to report (self-monitoring report),	<30 days late	Informal, NOV
including Best Management Practices (BMPs)	>30 days late	Administrative action, show cause hearing, penalty, civil action, revocation of permit.
Failure to Provide Complete Reports (self-monitoring reports), including reports on BMPs	Isolated Occurrence Recurring (>1 report in 6 months)	Informal, NOV NOV, Administrative Order, penalty
Falsification of Data/Reports	Any Instance	Administrative, Penalty, Civil Action, referral for criminal enforcement
Failure to report an effluent violation within 24 hours	Any Instance  (Note: Any failure to accurately report non-compliance is a SNC violation)	NOV, Administrative action, show cause hearing, penalty, civil action, revocation of permit.
Missed compliance schedule milestone or final date	Any Instance	NOV, Administrative action, show cause hearing, penalty, civil action, revocation of permit.
Tampering with monitoring equipment or methods	Any Instance	Administrative, Penalty, Civil Action, referral for criminal enforcement
Denial of access or refusal of entry	Any Instance	Administrative action, Show cause hearing, penalty, civil action, termination of discharge

Failure to comply with a District Order or request for information	Any Instance	NOV, Administrative action, show cause hearing, penalty, civil action, revocation of permit.
Bypassing treatment without authorization or notification to the POTW	Any Instance	Administrative, Penalty, Civil Action, referral for criminal enforcement
Failure to provide any notification as required by the User permit, BMP, or the Districts Policies and Procedures.	Any Instance	NOV, Administrative action, show cause hearing, penalty, civil action, revocation of permit.
Other violations not specifically identified above	Any Instance	Informal, NOV, administrative action, show cause hearing, penalty, civil action, injunction, cease and desist, emergency suspension, termination of discharge, referral for criminal action, or any other enforcement option available to the District through its Rules and Regulations.

- 1. In addition to any Administrative Fines, the Clifton Sanitation District may recover reasonable attorney's fees, court costs, court reporter's fees and other expenses of litigation against the violator. Such penalties shall be in addition to any actual damages the District may incur because of such violations. Where a violation is found to have caused or contributed to Interference or Pass Through, the maximum penalty may be increased as necessary to allow the District to recover any fines or penalties paid by the District for NPDES (CDPS) permit violations or to other regulatory agencies due to the Interference or Pass Through.
- 2. Failure to respond to informal contact from the District with 10 days (phone call and/or email) shall be a violation and the violator may be subject to NOV, Administrative action, show cause hearing, penalty, civil action, or revocation of permit.

## ATTACHMENT 2

FOG Enforcement Response

# CLIFTON SANITATION DISTRICT

Fats, Oils, and Greases Enforcement Response Guide August 5, 2012

This Fats, Oils, and Greases (FOG) Enforcement Response Guide (FOG-ERG) was developed to ensure a consistent response to food service establishments and other Users that have the potential to discharge elevated concentrations of FOG which may cause, or have the potential to cause, interference, obstruction, sanitary sewer overflows, bypasses, or storm water inflow to Clifton Sanitation District's (District) collection system and wastewater treatment plant. This FOG-ERG is intended to be used for any user required to comply with the Oil and Grease Program requirements set forth by the District in Title V of the District's Rules and Regulations. Facilities required to have a grease trap may opt to pay an Oil and Grease surcharge in lieu of installing a grease trap. Surcharging is addressed in Section II (G).

## I. Background

The discharge of fats, oils, and grease (FOG) from animal and vegetable sources can create sewer line stoppages that result in sanitary sewer overflows (SSOs). Two main sources of FOG discharges are from the restaurant industry and similar facilities (e.g. cafeterias, penal institutions, schools, colleges, and universities with food services, and commercial kitchens) and residential users. The FOG discharges may be a result of poor housekeeping practices at restaurants and from poorly informed decisions by residential users. The result is the same: SSOs.

The FOG discharges start in a liquid, semi-liquid or solid state due to temperature or hydrogenation state. Fats, oils, and greases all have fatty acid components. Palmitic acid is the most widely occurring saturated fatty acid and is found in beef tallow (32%), lard (30%) and cottonseed oil (21%). Oleic acid is the most widely occurring unsaturated fatty acid and is found in olive oil (83%) and peanut oil (60%).

Two conditions of common fats are saturated and unsaturated. The saturated fats are solids at room temperature, while the unsaturated fats are either liquid or semi-solid at room temperature. Many unsaturated fats are hydrogenated to make the fat solid at room temperatures. The hydrogenation process breaks the double carbon bonds of an unsaturated fat and replaces hydrogen molecules in place of the double bond. This hydrogenation process creates a saturated fat. The more hydrogenated vegetable oil the more solid the oil is at room temperature. Vegetable shortenings that are solid at room temperature are vegetable oils that have been completely hydrogenated.

Examples of animal saturated fats are beef, chicken, and pork. An example of a plant saturated fat is found in avocadoes. Many forms of these fats are liquefied by increasing the temperature of the fat as in the case of a deep fat fryer. Some are liquefied when exposed to certain bacteria, biological or chemical enzymes, chemical agents, or solvents. The discharge of hot or warm FOG materials to the sewer causes the quickest stoppage problems due to the receiving environment. The sewer line temperatures typically range from 70 –80 degrees Fahrenheit. At this temperature, the hot or warm FOGs that are discharged to the sewer cool off, adhere to the interior surfaces of a sewer line, and then harden in place once completely cooled. The adhesion sites become future sites for additional adhesions much like making a candle. A source discharge of FOG will create a blockage pattern in the sewer line characteristic of the material discharged and the frequency of discharge. The blockage tends to increase in size downstream of the user's lateral connection to the sewer.

An 8-inch sewer line that has a 2-inch coating of grease buildup around the inside has an effective diameter of only 4-inches and 75 percent less carrying capacity than the clean pipe.

Many FOGs accumulate on the upper surfaces of sewer lines due to the floating properties of FOGs and the non-miscibility of FOGs in water. The depositions of the FOGs on the upper surfaces of a sewer line are exacerbated by increases in the wastewater level caused by FOG obstructions that restrict the sewer flows. Grease interceptors are gravity separation devices to separate FOGs and solids from the wastewater discharge. The use of biological or chemical agents in grease interceptors to liquefy FOGs prior to discharge is problematic. Bacteria and enzymes act by reducing the long chain fatty acids into smaller chain molecules. A bacteriological system would need 24 - 72 hours to completely aerobically metabolize the FOGs to carbon dioxide and water. A gravity separation interceptor has about 30 - 120 minutes of detention time.

The result of bacterial or enzymatic product usage is a liquefaction or emulsification of the FOGs in the interceptor. This liquefied FOG is subsequently discharged to the sewer where any further degradation of the FOG by the bacteria or enzyme is prevented due to the dilution of the material and other interferences in the receiving sewage. The liquefied FOGs begin to adhere to sewer line interior walls, deplete the oxygen content of the wastewater due to the natural degradation microbes present in wastewater, and create odor problems due to the depleted oxygen content.

Once oils and greases enter a treatment plant, they can stick to the sides of channels and wet wells, interfering with level sensing equipment. Some facilities have experienced clogging of pores on fine screens and rotary screens. The low solubility of oils and greases reduces their rate of microbial degradation and can cause them to accumulate in biological treatment processes like activated sludge. It has been suggested that oils and greases may be contributing

factors to the promotion of Nocardia growth and the foaming in the aeration basins and to digester foaming problems.

The best way to minimize the impact of oil and grease on both the collection system and the treatment plant is to control the source. The District has a regulation for the pretreatment of grease requiring all commercial and industrial customers that have a high probability of discharging significant quantities of grease to install grease interceptors. The ordinance has provisions for design, establishes a local limit on the quantity of oil and grease that may be discharged to the sewer system, and mandates maintenance procedures, frequency of cleaning, or record keeping requirements.

The District's FOG program is focused on preventing the discharge of FOGs to the sewer system and educating the restaurant community and homeowners about good FOG management practices.

## II. FOG Program Elements

The District uses many activities, or elements, to control and prevent the discharge of FOG to the District's sewer collection system (collection system). These elements include:

- 1. Title V of the District's Rules and Regulations
- 2. Public education and outreach
- 3. Collection system cleaning and assessments
- 4. Collection system and sewer lateral closed circuit television (CCTV) inspection
- 5. Site inspections
- 6. Enforcement actions
- 7. Surcharging in lieu of grease trap installation
  - A. Public Education and Outreach
  - B. Collection System Cleaning and Assessments
  - C. Closed Circuit Television (CCTV) Inspections
  - D. Site Inspections

Site inspections enable the District to learn what sites may be problematic to the area's collection system. Inspections are generally conducted on an annual basis. This frequency may be increased depending on the history of the site, the type of establishment, whether or not a grease interceptor is on site, compliance history, sewer line stoppage history, or SSO history.

Generally, a grease trap inspection will consist of reviewing pumping and hauling documentation and a physical inspection of the trap and associated plumbing. Specific inspection items may include:

- 1. Confirming that pumping frequency conforms to the minimum allowed frequency as described in either Title V or the user's discharge permit.
- 2. Checking FOG and liquid levels within the trap compartments. FOG blanket in the first compartment should not exceed 25 percent of the total volume and should not block inlet or outlet pipes.
- 3. Determining if trap is level.
- 4. Determining if sanitary lines are connected to the trap influent.
- 5. Determining if commercial dishwashers or garbage disposals are connected to the trap influent.
- 6. Inspection of internal trap components such as elbows, tees, and baffles to ensure they are in good working order.
- 7. Inspection of lid fit. Lid should fit snuggly to prevent entrance of insects and rodents.
- 8. Assessment for odors. Odors may indicate the presence of high levels of solids.
- 9. Visual inspection for evidence of past overflows or bypass.
- 10. Visual inspection for evidence of enzyme or emulsifier usage. Section 5.5.6 of the District's Rules and Regulations prohibits the use of biological treatment or enzyme treatments used as a substitute for the servicing of grease interceptors. Use of enzymes to emulsify oil and grease is prohibited.
- 11. Inspection of the physical structure of the trap for signs of corrosion, cracking, and other wear and tear that may ultimately affect operation.
- 12. Sampling of grease trap effluent to determine compliance with the District's local limit on FOG. The local limit is listed in Section 5.5.7(c) and 5.10.3 of the District's Rules and Regulations.

#### E. Enforcement

The discharge of wastewater by a User that causes a sewer line obstruction or blockage is prohibited by the federal Clean Water Act, 40 CFR 403.5(b)(3) and the District's Rules and Regulations at Section 5.9.1, 5.9.3, and 5.9.7. The District is empowered to take enforcement actions against any Industrial User that causes a sewer line obstruction and/or SSO.

## F. Penalty Assessment

Determining a penalty amount that reflects the significance of the violation is extremely important. If the penalty is too small, its deterrent value is lost and the User may regard the amount as a tax or nominal charge to pollute.

The District may issue administrative penalties of up to \$1000 per day per violation (Section 5.19.3 of the Rules and Regulations). The District has categorized the various types of violations, and assigned a penalty range to each category. Penalty categories are determined by using the Enforcement Response Table (see below). All penalty assessments will be approved and signed by the District Manager or their designee. Penalty amounts are considered to be a deterrent. Penalty amounts may be assessed, in proportion to the economic benefit (savings) gained by the Industrial User due to non-compliance. Penalties may be assessed in addition to fees collected by the District to recover costs of additional cleaning, repairs, sampling, laboratory analysis and other monitoring, and administrative tasks.

CATEGORY 0 = No Penalty (Inspection Required Action/NOV)

CATEGORY 1 = \$1.00 to \$250

CATEGORY 2 = \$251 to \$500

CATEGORY 3 = \$501 to \$1000

CATEGORY 4 = DIRECT LEGAL ACTION (Includes all Civil and Criminal judicial actions)

Assessments for damages or destruction of the facilities of the POTW, and any penalties, costs, and attorney's fees incurred by the District as the result of the violating discharges, as well as the expenses involved in enforcement, are separate and not a part of this penalty assessment procedure.

Violation	Category	Action	Time Frame	Follow-up Action
GGI needs repair (missing or broken plumbing, broken manhole	0 Initial Notification	Inspection Requirement, NOV	Correct within 14 days	Verify compliance through on-site inspection.
ring, structural problems, etc.)	2 2 <sup>nd</sup> Notification	Penalty: \$500 and Administrative Order	Correct within 5 days	Verify compliance through on-site inspection.

Violation	Category	Action	Time Frame	Follow-up Action
	3 3 <sup>rd</sup> Notification	\$1000 plus \$250 per day since deadline established in the Initial Notification.	Immediate Compliance (24 hours)	Evaluate for escalated Category 4 response.
Grease Blockage results in a Sanitary Sewer Overflow (SSO)	3	\$1000 plus any damages or costs by District	Immediate	Clear Blockage. Document by District
Grease Blockage does not result in a Sanitary Sewer Overflow (SSO) but does require District to respond.	1	\$250 plus any damages or costs borne by the District	Immediate	Clear Blockage. Document by District
Last pump-out over 3 months unless longer pumping	0 Initial Notification	Inspection Requirement, NOV	Pump within 5 calendar days and submit receipt	Verify compliance through on-site inspection.
frequency has been approved.	2 2 <sup>nd</sup> Notification	Penalty: \$250	Correct within 48 hours	Verify compliance through on-site inspection.

Violation	Category	Action	Time Frame	Follow-up Action
	3 3 <sup>rd</sup> Notification	\$500 plus \$100 per day since deadline established in the Initial Notification.	Immediate Compliance (24 hours)	If not pumped within 24 hours, District can arrange pumping and charge customer for pumping plus a continuing \$100 per day penalty and any line jetting required.
>25% FOG + solids and/or odor of H <sub>2</sub> S are noted.	0 Initial Notification	Inspection Requirement, NOV	Pump within 5 calendar days and submit receipt	Verify compliance through on-site inspection.
	2 2 <sup>nd</sup> Notification	Penalty: \$250	Correct within 48 hours	Verify compliance through on-site inspection.
	3 3 <sup>rd</sup> Notification	\$500 plus \$100 per day since deadline established in the Initial Notification.	Immediate Compliance (24 hours)	If not pumped within 24 hours, District can arrange pumping and charge customer for pumping plus a continuing \$100 per day penalty and any line jetting required.
Disposing of waste grease/oil to the sanitary sewer	3	\$1000 – Administrative Order (AO)	Halt Immediately	Issue order and verify compliance. Evaluate other BMPs in AO.

Violation	Category	Action	Time Frame	Follow-up Action

For the following deficiencies, the District will issue an inspection requirement or NOV (Category 0) for the initial response. If the Industrial User does not correct the deficiency within the required timeframe, the POTW will increase its enforcement response as follows: 2<sup>nd</sup> notice: \$250. 3<sup>rd</sup> notice: \$500 plus \$100 per day since initial deadline. 4<sup>th</sup> notice: Evaluate for termination of sewer service.

Violation	Category	Action by User	Timeframe	Follow-up
Missing signage above sinks	0	Post provided signs	5 calendar days	Verify. If not corrected, order compliance. Penalty for continuing violation.
Missing or damaged drain screens	0	Replace screens	10 calendar days	Verify. If not corrected, order compliance. Penalty for continuing violation.
Improper employee practices	0	Employee training and documentation	Documentation mailed, emailed or hand delivered within 5 calendar days	Provide a copy of BMP Training Form. Verify information submitted. If not corrected, order compliance. Penalty for continuing violation.

Violation	Category	Action	Time Frame	Follow-up Action
Insufficient employee BMP training documentation	0	Employee training and documentation	Documentation mailed, emailed or hand delivered within 5 calendar days	Provide a copy of BMP Training Form. Verify information submitted. If not corrected, order compliance. Penalty for continuing violation.
Waste Grease Bin lid open	0	Replace/close lid	Immediately	Verify. If not corrected, order compliance. Penalty for continuing violation.
Waste Grease Bin leaking	0	Replace or repair Waste Grease Bin and require immediate action to clean and prevent further off-site migration. Prohibit power washing unless all wastewater is collect and properly disposed (not in drains or sewer).	10 calendar days  — Repair/Replace  24 hours to clean and prevent further leakage.	Verify. If not corrected, order compliance. Penalty for continuing violation.

Violation	Category	Action	Time Frame	Follow-up Action
Waste Grease Bin >90% (estimated) full	0	Pump Waste Grease Bin	Pump and submit receipt by mail, email or hand deliver within 5 calendar days.	Verify. If not corrected, order compliance. Penalty for continuing violation.
Insufficient pumping documentation	0	Obtain pumping receipts from the vendor and copies of cancelled checks for service.	Submit receipts and copy of cancelled check by mail, email or hand deliver within 5 calendar days.	Ensure submission of receipts within required timeframe. Failure to report results in enforcement and penalty.
Corrective action not completed by required deadline (for all violations note cited above).	0	Complete corrective action	24 hours	Verify. If not corrected, order compliance and issue penalty.

## G. Surcharge for FOG

It is the intent of the Clifton Sanitation District (CSD) to implement policies in a fair and equable manner. In doing so it is imperative that all sewer users pay their fair share of the systems operational cost.

Section 5.5 of the CSD Rules and Regulations requires the installation of grease interceptors at facilities likely to discharge high concentrations of FOG to the District's collection system. These interceptors are necessary for the removal oil and grease.

The District is sensitive to the fact that the installation of a grease interceptor at an existing facility can be expensive and in some cases place a heavy financial burden on the facility. In an attempt to avoid this, CSD has provided a provision in Section 5.5.12 of its Rules and

Regulations that allows existing facilities to pay a surcharge in lieu of the grease trap installation requirement.

Section 5.5.12 states that the non-complying facility shall "pay the cost incurred by the District for accelerated sewer line cleaning on the Districts sewer lines providing service to the User, costs to the District of treating the excess strength waste, and any costs for sampling and analysis. The District believes that these costs will be comparable to costs incurred by a User that installs and maintains grease interceptors."

The accelerated sewer cleaning surcharge is based on an average cost to the District of cleaning 400 linear feet of gravity sewer line at a quarterly frequency. In 2012, the cost to the District was \$109 per month. Surcharges may be adjusted to match current operating costs.

## **FOG Surcharge Rational**

It is the intent of the Clifton Sanitation District (CSD) to implement its Industrial Pretreatment Program in a fair and equable manner. In doing so it is imperative that all sewer users pay their fair share of the systems operational cost.

Section 5.5.2 of the CSD Rules and Regulations requires the installation of grease interceptors at food facilities that discharge to the CSD system. These interceptors are necessary for the removal oil and grease.

CSD is sensitive to the fact that the installation of a grease interceptor at an existing facility can be expensive and in some cases place a heavy financial burden on the facility. In an attempt to avoid this, CSD has provided a provision in Section 5.5.2.a.4.3 of its Rules and Regulations that allows existing food preparation facilities to pay a surcharge in lieu of the installation requirement.

Section 5.5.2.a.4.3 states that the non-compiling facility shall "pay the cost incurred by the District for accelerated sewer line cleaning on the Districts sewer lines providing service to the User, costs to the District of treating the excess strength waste, and any costs for sampling and analysis. The District believes that these costs will be comparable to costs incurred by a User that installs and maintains grease interceptors."

#### **Accelerated Cleaning Surcharge.**

Section 5.5.2.a.4.1 of the Districts Rules and Regulations require that accelerated cleaning be performed downstream from a non-complying food preparation facility at a minimum frequency of once per quarter.

When a discharge containing excessive oil and grease enters a sewage collection system, it usually remains in solution for a short period of time before adhering to the sewage collection system pipe. Once the grease attaches to the piping system it solidifies and continues to accumulate until a blockage occurs. Based on operational observations, the District believes that the buildup usually occurs within 400 feet of the discharge. Based on this observation the District Accelerated Cleaning Surcharge will be base on the average cost incurred by the District as a result of cleaning 400 feet of sewer pipe at a minimum quarterly frequency. This cost is \$109 per month.

## **Extra Strength Treatment Surcharge**

The Extra Strength Treatment Surcharge allows the CSD to recover actual treatment costs associated with treating wastewater containing Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) in excess of normal domestic discharges identified in Section 5.3.2 (b) Part 5 of the Districts Rules and Regulations.

This surcharge is implemented when a food preparation facility does not remove grease with an approved interceptor. Since this grease is not removed at the facility it enters the wastewater

collection system and eventually makes its way to the treatment plant. The cost incurred at the treatment facility in treating this waste is in excess of normal CSD treatment fees, and as a result the District implements the surcharge to recover actual costs incurred.

<u>BOD Surcharge:</u> CSD currently charges for BOD discharges in excess of 200 mg/l at a rate of \$0.7952 per pound. Assuming that the average grease interceptor volume is 1000 gallons and that it contains an average concentration of 32,200 mg/l after three months of operation (*Carollo 2009*); the following calculation is used to assess the BOD surcharge:

BOD Surcharge = 0.001000 x 8.34 x 32,000 mg/l = 266 lbs of BOD 266 lbs BOD x \$0.7952/lbs = \$211 / Quarter \$211 / Quarter x 4 Quarters / years = \$844 / year \$844 / year 12 months/ year = \$70.33 / Month

<u>TSS Surcharge:</u> CSD currently charges for TSS discharges in excess of 250 mg/l at a rate of \$0.3935 per pound. Assuming that the average grease interceptor volume is 1000 gallons and that it contains an average TSS concentration of 52,000 mg/l after three months of operation (*Carollo 2009*); the follow calculation is used to assess the TSS surcharge:

TSS Surcharge = 0.001000 x 8.34 x 51,750 mg/l = 431 lbs of TSS 431 lbs TSS x \$0.3935 / lbs = \$169 / Quarter \$169 / Quarter x 4 Quarters / years = \$676 / year \$676 / year 12 months/ year = \$56.33 / Month

#### **Total Surcharge for non-compiling facilities:**

Accelerated Cleaning Charge = \$109/Month
BOD Treatment Surcharge = \$70.33 / Month
TSS Treatment Surcharge = \$56.33 / Month
Total Monthly Surcharge = \$235.66/Month

#### Reference

Carollo Engineering (2009). Technical Memorandum No.7 Grease Receiving Facility