



YOUR GO-TO RESOURCE FOR EVERYTHING GREEN IN HAMPTON ROADS

GREASE HAULERS TRAINING

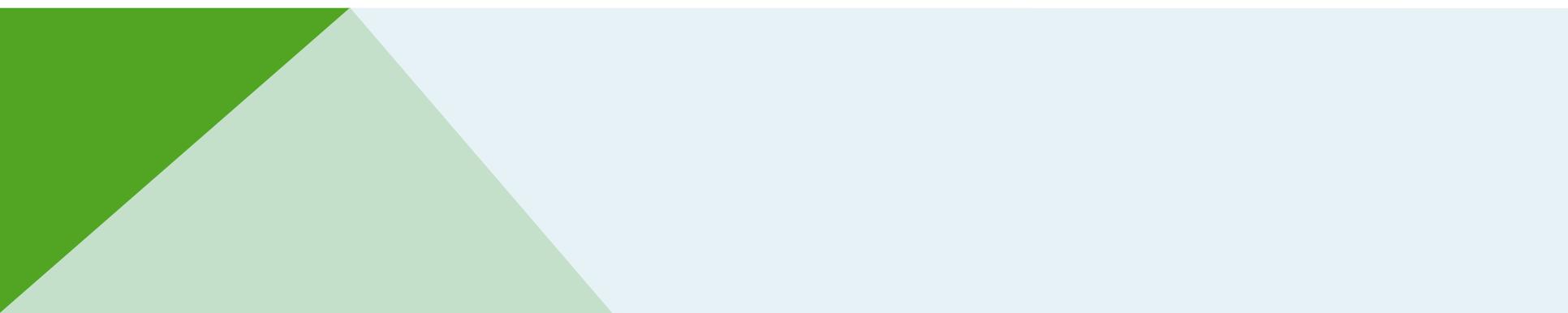
REGIONAL FOG PROGRAM

Hampton Roads Planning District Commission

OBJECTIVE

Train Grease Haulers to comply with the Regional Consent Order and ensure proper maintenance of grease control devices.

BACKGROUND

- Special Orders of Consent were entered into between the Virginia DEQ, HRSD and area localities to resolve Sanitary Sewer Overflows (SSOs).
 - Prohibited discharge of Fats, Oils and Grease (FOG) causes or significantly contributes to two-thirds of all SSOs within the region.
 - Management, Operations and Maintenance (MOM) Program established to efficiently resolve SSOs.
 - FOG program developed within MOM to monitor and regulate FOG waste.
 - Food Service Establishments (FSEs) and Grease Hauler training programs established to inform and train FSE employees, and Hauler owner/operators.
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WHAT IS FOG?

- Fats, Oils, and Grease
- Any combination of animal fats and/or vegetable oils that are used to prepare food, or are found in food.



THE FOG PROBLEM...

- When discharged into sewer lines, FOG accumulates and sticks to pipe walls causing blockages and backups in the sanitary sewer system.
- Significant sources of FOG are residential homes and Food Service Establishments (FSEs), where cooking oil and residual food grease from dishes is improperly disposed of in drains.



WHAT IS A GREASE CONTROL DEVICE (GCD)?

- A Grease Control Device is a passive device that uses retention time to separate FOG and solids from kitchen wastewater.
- There are 3 types of GCDs...



Gravity Grease
Interceptor

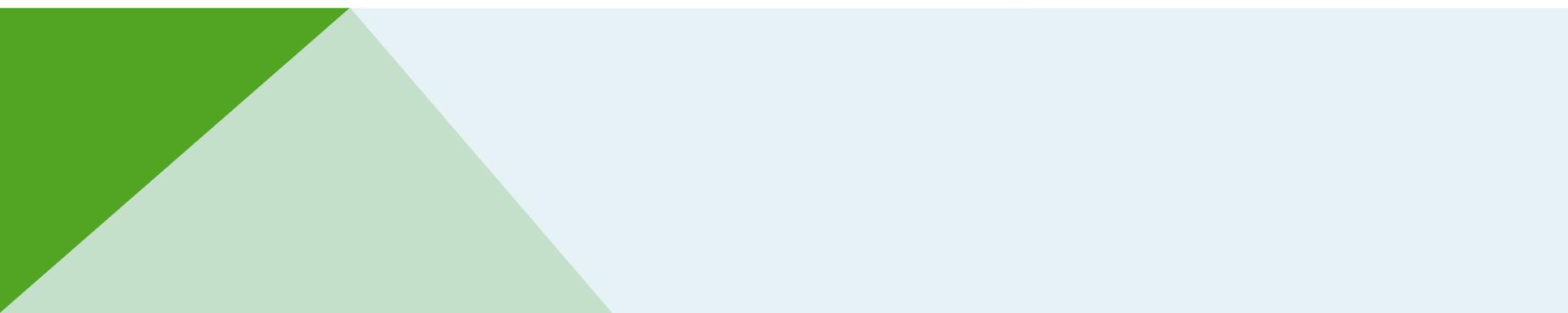


Hydromechanical
Interceptor (In-Floor
Grease Trap)



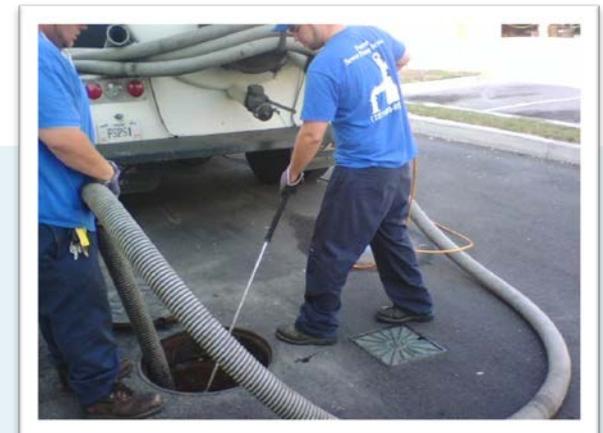
Hydromechanical
Interceptor (Under Sink
Grease Trap)

GENERAL GCD INFORMATION

- Hampton Roads localities have or are developing new or modifying existing ordinances which require FSEs to properly dispose of FOG waste.
 - Any person collecting, pumping or hauling waste from GCDs must be permitted under the HRPDC Regional Grease Hauler Program AND an approved disposal facility.
 - GCDs shall be properly maintained at all times; including complete removal of all contents, including floating material, wastewater and settled solids.
 - Proper and thorough documentation for grease disposal is required.
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GRAVITY GREASE INTERCEPTORS

- Gravity Grease Interceptors are required to be cleaned a minimum of once every 90-days or when it is 25% full of FOG waste (floatable and settled material).
- The FSE is responsible for ensuring the GCD is maintained regularly, properly and the maintenance is recorded in a maintenance log.
- The maintenance log should include the date and time of cleaning and total volume of waste removed, including water. The grease hauler manifest that includes this information will suffice. Records must be kept for a minimum of 3 years.
- Remember yellow grease **must not** be discarded directly into the GCD. GCDs must not be used as containers for direct disposal of FOG waste.

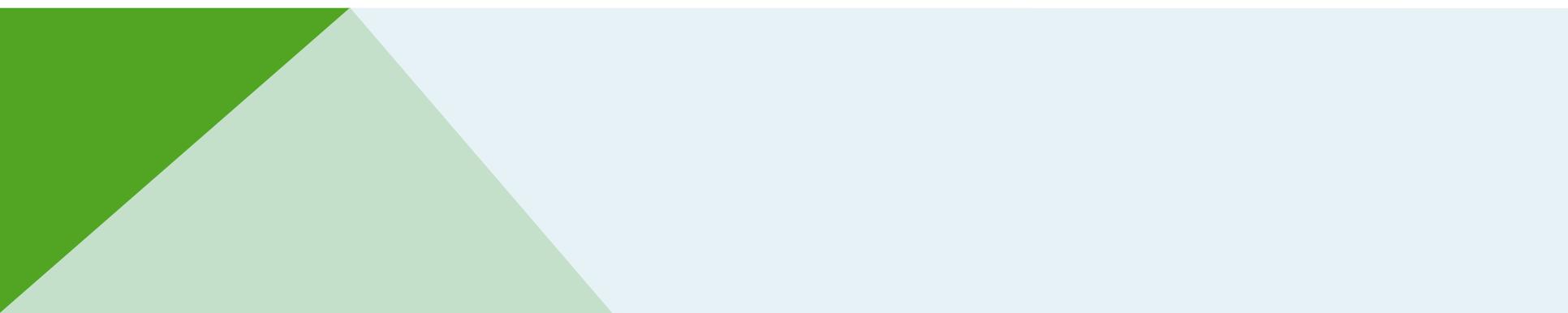


HYDROMECHANICAL INTERCEPTORS (GREASE TRAPS)

- Grease traps are smaller than gravity grease interceptors and are typically located inside, usually underneath the sink or in the floor.
- FSEs can install multiple grease traps inside; however, care should be taken to ensure that all the grease traps are maintained appropriately.
- In most localities, grease traps over 50 GPM (100 lb) in size must be cleaned by an approved grease hauler.
- FSE employees may clean grease traps under 50 GPM and dispose of waste in the solid waste (trash) container.
- Grease traps should be easily accessible since they require frequent cleaning, no heavy items should be stored on top of the device. Grease
- Grease traps should be cleaned a minimum of once per week or when it is 25% full of FOG waste (floatable and settled material).



GREASE TRAP CLEANING – TOOLS & MATERIALS

- A large trash can
 - Two or three trash can liners/bags (heavy duty) or sealable containers
 - Absorbent material (floor dry or clay kitty litter)
 - Proper hand tools and safety equipment for opening trap (allen wrench, screw driver, rubber gloves, etc.)
 - Tools for removing contents:
 - Scoop – for water and solids
 - Scraper (putty knife)
 - Wet/dry vacuum
 - Clean paper towels or cloth rags
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GREASE TRAP CLEANING – STEP BY STEP

- Make sure grease trap is properly reassembled
- Examine the gasket for damage (replace if necessary)
- Clean and reinstall rubber gasket and reposition lid on tank, ensuring screws are properly tightened
- Ensure enough absorbent material has been placed in bag to soak up all excess liquids
- Tie the bag and place in garbage (solid waste) dumpster or designated receptacle.

It is **ILLEGAL** to dump grease trap or kitchen waste into the sanitary sewer system (toilets, cleanouts, manholes, etc.), storm drains, ponds, or outdoor areas.



GREASE TRAP CLEANING – STEP BY STEP

- Carefully remove lid without damaging gasket
- Observe installation of internal parts to ensure proper reinstallation after cleaning
- Remove ALL contents of trap (by scooping and vacuuming the waste products) until grease trap is empty
- Do NOT use hot water, degreasers, or soaps to clean interior of trap
- Scrape all inside walls, baffles, and screens
- Inspect and note condition of tank, baffle, and all removable parts (schedule repairs or replacement as needed)



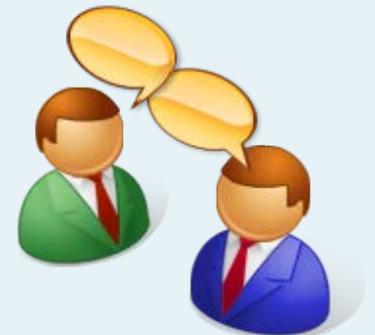
GREASE HAULER REQUIREMENTS

- **In most localities, Grease Haulers must have...**
 - A waste disposal truck inspection with the Virginia Health Department
 - Permit from an approved disposal facility
 - Successfully completed the FOG Regional Grease Hauler Training
- **To service an FSE in Hampton Roads, the grease hauler must have...**
 - FOG removal and GCD cleaning equipment
 - Disposal site information
 - Manifest documentation

*Check with your locality for specific grease hauler requirements

GCD SERVICE BEST MANAGEMENT PRACTICES

- The hauler and FSE general management shall coordinate service dates and time for Gravity Grease Interceptors and Grease Traps.
- The hauler and FSE general management shall maintain open communication regarding the GCD and GCD maintenance. *Communication Items should include...*
 - GCD Structural condition and capacity.
 - Anticipation of seasonal changes in business.
 - Establishment of proper frequency, minimum cleaning once every 90-days for Gravity Grease Interceptors and once a week for Grease Traps, or when the GCD **total accumulation reaches 25% of the overall GCD volume**. A Sludge Judge can be used to determine amount of FOG waste and settled solids prior to cleaning. **If greater than 25%, the cleaning must be scheduled more frequently.**



FOG CALCULATION



Sampling Location	Grease Layer (in.)	Solids Layer (in.)	Total Depth (in.)
A	4	3	24
B	5	2	24
C	4	2	24
D	2	1	24
E	1	1	24
F	3	2	24
Average	3.2	1.8	24

$(\text{grease} + \text{solids}) / \text{total depth} * 100 = \% \text{ FOG}$

$$(3.2 + 1.8) / 24 * 100 = 20.8\%$$

This particular interceptor would be in compliance as the total grease and settled solids layer is < 25%.



GCD PUMPING/CLEANING AND INSPECTION PROCEDURES

Prior to GCD cleaning, the Grease Hauler should...

- Establish contact with the FSE general management, or their representative, upon arriving at the FSE site at the scheduled time
- Review with management why they are on the property
- Review any possible issues the FSE had with the GCD since the last date of service and determine if a change in service frequency is warranted
- Review required paperwork and services to be performed that day
- Record the volume of **combined settled solids and floating grease** prior to cleaning; if greater than 25% of the overall GCD volume, an increase in cleaning frequency is required



GCD PUMPING/CLEANING AND INSPECTION PROCEDURES

Grease Control Device Cleaning...

- Remove lid(s) and baffle(s), if possible
- Pump **the entire contents out of the GCD** into an approved disposal container/truck
- Scrape the sides, lid and baffles with a putty knife (or similar object) to remove as much grease as possible ***WARNING* Do not use hot water, acids, caustics, solvents, or emulsifying agents when cleaning GCD**
- Record **date and total volume of waste removed, including water**, on the GCD maintenance record



GCD PUMPING/CLEANING AND INSPECTION PROCEDURES

Grease Control Device Cleaning...

- Perform GCD Inspection
- Replace baffle(s) and lid(s)
- FSE management should be notified when cleaning is complete
- FSE management should perform a visual inspection acknowledging that the service is complete
- Leave signed manifest documents and schedule the next GCD cleaning
- Dispose of FOG waste at an approved disposal facility, FOG should **NEVER** be discharged to the sanitary sewer or storm water system



GCD PUMPING/CLEANING AND INSPECTION PROCEDURES

Grease Control Device Inspection...

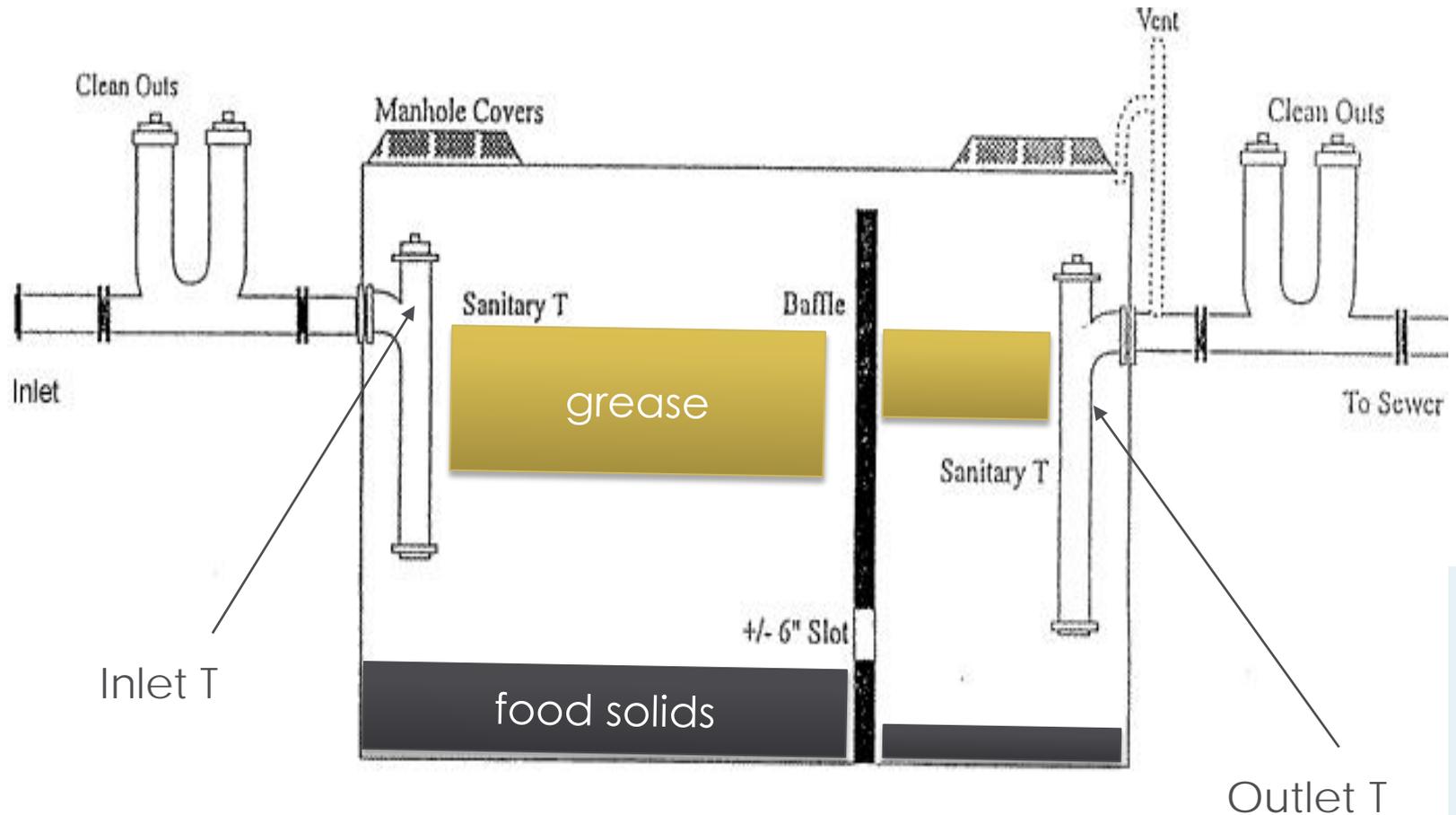
- Locate Inlet and Outlet Ts, ensure proper depth
- Note Outlet T material type (PVC, cast iron, concrete, etc.)
- Note any visible holes or leaks in tank, corrosion
- Visually check condition of baffle(s) and location of baffle opening
- Locate and note condition of all manhole covers, lids and cleanout covers
- Record findings on cleaning manifest and notify FSE management of any maintenance issues



GREASE INTERCEPTOR PUMPING/CLEANING AND INSPECTION PROCEDURES

Gravity Grease Interceptor Inspection...

$$\% \text{ of FOG} = \text{Sum of Grease \& Solids} / \text{Total Depth of Content} \times 100$$



GRAVITY GREASE INTERCEPTOR BAFFLE

FAIL

Deteriorated
Baffle



PASS



GRAVITY GREASE INTERCEPTOR OUTLET T

FAIL



PASS



MISSING T



GCD PUMPING/CLEANING AND INSPECTION PROCEDURES

- Decanting procedures are prohibited throughout the region.
- Not all GCDs are single compartment devices. GCDs may have two or more compartments and each side must be pumped and cleaned thoroughly; if a compartment is not accessible, notify the FSE that there is a problem.
- Once GCD is completely emptied, hydro-jetting services may be performed (recommended semi-annual service).
- Line jetting from the FSE to the GCD can be used to remove and collect FOG buildup as a preventative maintenance measure. *(Be sure to collect contents from line jetting so it does not enter the sanitary sewer system.)*
- FSEs must retain maintenance records and inspections reports onsite for a minimum of 3 years.

GCD MAINTENANCE RECORDS

FOG Generator Information

- FSE Information
- Date and time of service
- Total volume of waste removed, including water
- % of FOG removed
- GCD condition and maintenance concerns
- Appropriate signatures and approvals



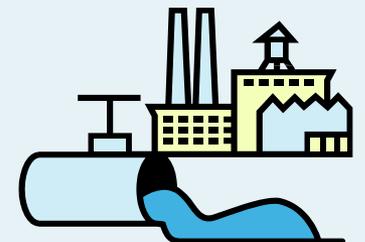
GCD MAINTENANCE RECORDS

Hauler Information

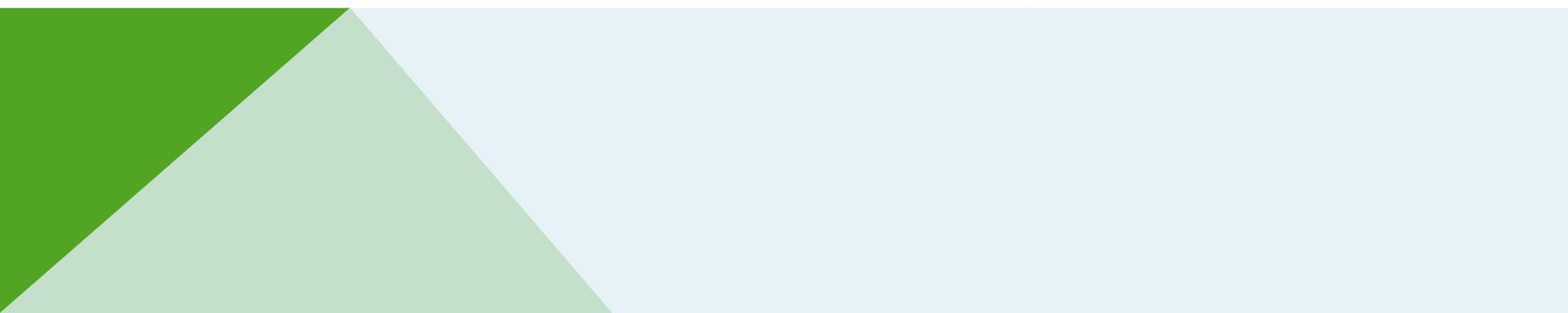
- Driver information
- Type of waste (details on mixed waste)
- Disposal site
- Signatures

Disposal Site Information

- Date and time of receiving
- Volume received
- Additional information on quality control for waste disposal



GCD HAULERS TRAINING HIGHLIGHTS

- Communication with FSE and documentation of services provided are essential.
 - GCDs shall be completely cleaned with FOG waste entirely removed.
 - All records shall be retained for a minimum of 3 years.
 - The appropriate cleaning schedule and procedures help to eliminate FOG discharge into the sanitary sewer system.
 - Hot water, acids, caustics, solvents, or emulsifying agents should NEVER be used when cleaning GCD.
 - FOG waste should NEVER be discharged to the sanitary sewer or storm water system.
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For more information regarding FOG or the FOG program, contact...

Hampton Roads Planning District Commission
Regional FOG Program

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