

RESTAURANT GREASE MANAGEMENT IN NORTH CAROLINA



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Septage Management Program

- Program Started in 1989 by GS 130A-291.1
- Modified in 1995
 - ▣ Changed Definitions
- Modified in 2001
 - ▣ Increased Fees and Added Education Requirements

Definitions



GS 130A-290 states:

(c) Grease septage, which is material pumped from grease interceptors, separators, traps, or other appurtenances used for the purpose of removing cooking oils, fats, grease, and food debris from the waste flow generated from food handling, preparation, and cleanup.

GS 130A-291.1(c)



No septage management firm shall commence or continue operation that does not have a permit issued by the Department

GS 130A-290(33)



"Septage management firm" means a person engaged in the business of pumping, transporting, storing, treating or disposing septage.

15A NCAC 13B .0832(a)(3)

The permit requirement of G.S. 130A-291.1(c) applies to persons who manage septage generated from properties which they own, lease or manage as part of a business, including but not limited to mobile homes, mobile home parks, and other residential and commercial property.

Permit Requirements



- Annual Permit Fee
- Permit Application
- Approved Management Method

- Documentation from Local Government that can Reintroduce into Grease Traps

Reintroduction

- Grease septage , or any part of grease septage, shall not be introduced or reintroduced into a grease trap, interceptor, separator, or other appurtenance unless the Division has received written approval from the wastewater system permitting authority that reintroduction is acceptable per .0832(d)(1). Also applies to domestic.

2014 Management of Grease in NC

- 168 Septage Firms Permitted to Manage Restaurant Grease in
- 5 Restaurants permitted to manage own grease
- Three sell bugs or enzymes



Gallons Grease Septage Pumped

- 51,701,521 Gallons of Grease Pumped in 2013
- 30 Firms Pump Over 300,000 Gallons Grease in 2013
- 15 of those 30 Pumped in Excess of 1,000,000 Gallons Grease in 2013

Compliance

- ❑ Firm Vehicles Inspected Prior to Operation
- ❑ Vehicles and records inspected at Least Every Other Year



Compliance for Truck Inspections

Make sure the ports and values are not leaking

**3 INCH LETTERING
NAME, PHONE,
LOCATION
PERMIT NUMBER**

The tank must be secured to the frame of the truck



Compliance Actions in 2013

- 677 Inspections
- 12 NOVs issued
- Average 7 Penalties per Year



Grease Management Methods



- Grease Compost Facilities
- Land Application Sites
- Grease Septage Detention & Treatment Facilities
- Anaerobic Digesters
- Landfills

Compost Facilities That Accept Grease

- The following facilities are permitted to accept grease septage waste

Facility Name	Contact Name	Phone Number	County
Dean Brooks	Judy Brooks	919-837-5914	Chatham
McGill Environmental	Steve Cockman	919-362-1161	Chatham
Craven Ag Services	Billy Dunham	252-633-5334	Craven

Compost Permits

- Solid Waste Compost Rules at
 - ▣ 15A NCAC 13B .1400
- Rules Address Location, Compost Method, Operation, and Minimum Product Standards



Composting Grease Waste

- 5 Compost Facilities Permitted to Receive Grease Trap Pumpings
- 2 Division of water Resources (DWR) Compost Facility Permitted to Receive Grease
- 3 compost grease waste from their NC septage firm only and do not allow other NC Septage firms into their facility.
- 3 compost facilities do Receive Waste from other NC Septage firms.

Example of Composting mixing Pit



Composting in windrows



Composting Grease Waste Includes;

- Bacteria
 - Heating
 - Blending/Absorption
 - Time
-
- To reduce the pathogens present in Brown Grease Waste

Septage Land Application



Septage shall be applied to the surface of the land from a moving vehicle in such a manner as to have no standing liquid or soil disturbance resulting from the waste flow after the discharge is complete.

Processing Grease Waste

Grease septage shall be treated in accordance with 40 CFR 257.3-6 or treated by an equivalent or more stringent process in 40 CFR 503 Subpart D.

Which include the Processes to Further Reduce Pathogens or PFRP and Vector Attraction Reduction or VAR by way of time and temperature

15A NCAC 13B .0838 (a) (15)

Grease septage shall be diluted at least 1:1 from its concentration when pumped with domestic septage or water if land applied over perennial vegetation. This dilution shall be increased if crop damage occurs.

Example of a Grease burn on the Land Application field



Compliance requirements for Septage Land Application sites which include grease waste

- Nutrient Management Required per land application site
- Treatment Required such as hydrated lime
- Land Application Sites are Inspected at Least bi-annually
- Land Application Records are Inspected at Least Annually

Dewatering Grease Waste

- ❑ 17 Facilities Permitted with Dewatering Boxes
- ❑ 3 Only for Individual Use
- ❑ 14 Accept Waste from Any Pumper



Dewatering Requirements

- ❑ Engineered Plans
- ❑ Solids Management Methods
- ❑ Liquid Management Methods



Dewatering Facilities

Facility Name	Contact Name	Phone Number	County
301 Environmental Clean-Up Inc.	Clayton McDonald	910-483-8873	Cumberland
A-Sani Can Service	Gary Dellinger	704-483-5641	Lincoln
Carolinas Resource Recovery	David VanDerZee	704-497-0445	Forsyth
Carolinas Resource Recovery	David VanDerZee	704-497-0445	Mecklenburg
Brian's Waste Recycling	David Wallwork	910-738-5311	Robeson
Bristol Recovery, Inc.	Oakley Baker	910-323-4672	Cumberland
Craven Ag Services, Inc.	John Dunham	252-663-5334	Craven
David Brantley & Sons	Shane Brantley	252-478-3721	Franklin
D&D Septic LLC	David Newsome	919-242-3751	Wilson
Environmental Relief Technology (ERT)	Rodney Sides	704-904-0300	Forsyth
GreaseCycle	Dylan Gehrken	919-817-8706	Wake
Stanley Septic Service, Inc.	Jim Lanier	704-263-8186	Durham
Stanley Septic Service, Inc.	Jim Lanier	704-263-8186	Gaston
Waste Management	Chris McKeithan	910-798-1221	New Hanover

Grease waste Dewatering Box



Another Example of Dewatering box



Training Requirements

Each septage management firm operator shall attend an approved training course of no less than four hours of instruction per year.

New septage management firm operators and those that have not operated a septage management firm in the 24 months preceding the submittal of an application shall complete the training before commencing operation.

Per G.S.130A-291.3(a)

Who Has to be Trained

- Training required of company owner, officer, or other individual responsible for day to day operations of business.
- If the trainee leaves or sells, the operator has 90 days (or next class) for retraining.
- By Dec 31 of each year, you must have met your training requirement.

Grease Septage

Material pumped from grease interceptors, separators, traps, or other appurtenances used for the purpose of removing cooking oils, fats, grease, and food debris from the waste flow generated from food handling, preparation, and cleanup per G.S.130A-290(32)c.

Types of Appurtenances

- Under the sink interceptors, separators & outside grease traps
- Not vats for cooking oils (fryer grease, yellow grease)
- Septage Management Firm Permit required for anyone who cleans/pumps these units.

Restaurants Who Clean their Units



- No fryer grease
- No liquid in the dumpster
- Procedure sheet with firm application
- Pay the regular annual firm fee of \$550

15A NCAC 13B .0832(d)(5)

- Septage, or any part of septage, shall not be disposed of in a dumpster unless the waste passes the paint filter test, the landfill receiving the waste is a properly permitted municipal solid waste landfill, in accordance with 15A NCAC 13B .1600, and the landfill operator has provided the Division written documentation that the specific material will be accepted.

What is the Paint Filter Test?

- How the method works is pretty simple: A pre-determined amount of material is placed in a paint filter. If any portion of the sample passes through and drops from the filter in a five (5) minute period, then the material is deemed to contain free liquids. That's it. No fancy lab equipment is required, the paint filter is a standard conical paint filter [60 +/- 5% (fine meshed size)] available at local paint stores.

Why is the Paint Filter Test Important?

- Simple, and yet very important. The presence of free liquids indicated by the paint filter test may affect your hazardous waste generator status and whether or not your hazardous waste can go to landfill for disposal. If misunderstood, it could lead to violations and fines. If understood and used properly it is a useful tool to assist you in maintaining your compliance with the regulations.

Grease Interceptors

- Improper discharge of fats, oils and grease into the sanitary sewer system is a leading cause of sanitary sewer overflows. The pretreatment coordinator reviews and approves pretreatment systems and sizing calculations to ensure that they are adequate for the fats, oils and grease to be discharged by food service establishments and vehicle maintenance facilities.

Grease Interceptor Permitting

- An applicant must obtain approval for a pretreatment system prior to submitting commercial building plans for new buildings, additions, change of use, alterations and interior completions at a food service establishment or vehicle maintenance facility.
- A **food service establishment** includes any commercial building that has a kitchen or food preparation area where grease-laden waste is drained into the sanitary sewer system.

Inside Grease Trap Cleaning



Procedures to Clean an Interior Point-Of-Use Grease Interceptor

- ❑ NOTE: Interceptor must be cleaned when the sinks are not being used and no food preparation is taking place. Do not VIOLATE any Health Department Regulations.
- ❑ Obtain proper tools to open the interceptor.
- ❑ Place plastic trash bags (or any disposable item) on floor to protect floor from contamination.
- ❑ Remove lid from interceptor and place upside down on floor protection item.
- ❑ Skim grease from top of interceptor and place in a container lined with two strong disposable bags.

Cleaning Procedures Continued

- ❑ Scrape walls of the interceptor with a wide putty knife or similar item to remove solids and grease that have accumulated on the walls.
- ❑ Remove solids from the bottom of the interceptor and place in the same container with the grease skimmings.
- ❑ Inspect the trap for any equipment deficiencies and make repairs.
- ❑ Place lid on interceptor carefully. Make sure lid is sealed properly or odors will be released.

Proper Clean Up and Solidification

- ❑ Place floor covering item in the trash dumpster.
- ❑ Remove container with grease and solids from the food preparation area.
- ❑ Solidify contents with an absorbent material such as kitty litter. Make sure all contents are solidified. This may take several minutes for the material to absorb all of the liquid.
- ❑ Tie bags together securely.

Proper Disposal of Grease Septage Waste

- Inspect bag for leaks and re-bag if needed.
- Place bag in trash dumpster.
- Clean the area and sanitize all surfaces in the areas as prescribed by the Health Department.
- Sign and date the Cleaning Procedures sheet included with the permit renewal application to certify the procedure has been reviewed

Restaurant Containers

- Septage, or any part of septage, shall not be placed in containers at restaurants designated for yellow grease per .0832(d)(3).
- Restaurants may obtain a SDTF permit for a storage tank for grease septage. No greater than 200 gallons.