



PACE
PARTNERS FOR A
CLEAN ENVIRONMENT

What is PACE?

PACE provides education outreach, technical assistance, and recognition for environmental achievement. The program is available at no cost to businesses in Boulder County. PACE offers:

- Assessments to identify opportunities for waste reduction, water conservation, and energy-efficiency
- Information and assistance to meet your business needs
- Compliance education
- Public recognition for your environmental efforts

Why Participate?

Compliance – Our free, non-regulatory consultations help you comply with environmental laws and ordinances and reduce your liability.

Cost Savings - Less waste means lower disposal and operating costs. Efficient use of water, energy, and materials saves money.

Public Image - Environmental practices impact your image with customers, the community, and regulatory agencies.

Public Recognition!

PACE publicly recognizes certified businesses through free advertising. This includes Internet listings and advertising in newspapers, magazines, utility bill inserts, and radio spots.

Certified businesses receive a PACE window decal and framed certificate. PACE encourages the public to support businesses that contribute to the community through environmentally sound operating practices.

Grease Management and Cooking Oil *Recycling*

Spring 2009

Preventing Fats, Oil and Grease From Reaching Our Sewers

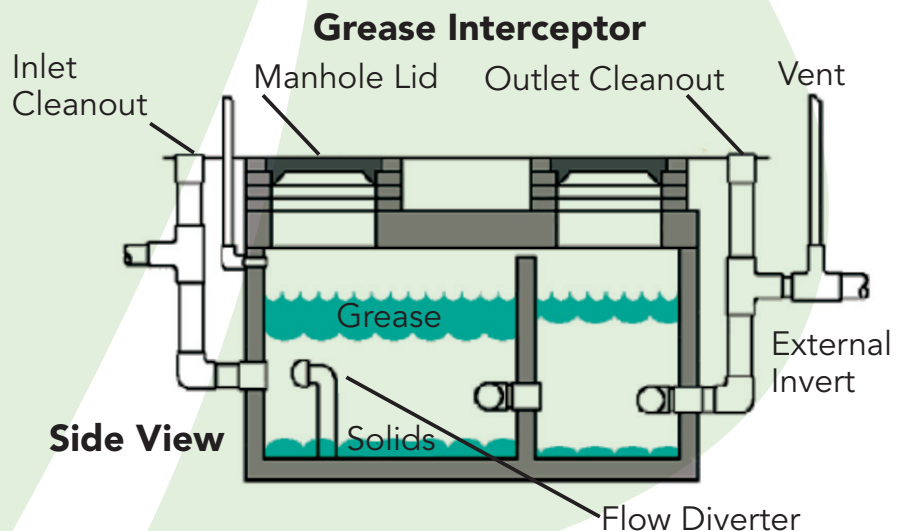
Grease buildup from commercial food preparation establishments without adequate grease control measures contribute greatly to sewage backups and overflows that can cause property damage and environmental impacts, and shut down your restaurant due to health hazards. Grease accumulation in restaurants is usually from such things as:

- Butter and margarine
- Cooking fat and oil
- Dairy products
- Food scraps
- Sauces

Usually fats, oil and grease are washed into the sanitary sewer through kitchen sinks and floor drains, and attach to the walls of sewer pipes in your property and under the streets. This buildup slows drainage and can eventual block sewer lines, causing backups and overflows.¹

Grease Trap/Interceptor Maintenance

A grease trap/interceptor is designed to physically separate grease and solids from kitchen wastewater. As wastewater enters a trap the water slows, and the grease particles, which are lighter than water, coalesce and float towards the top of the tank. The heavier solid particles settle at the bottom. The trap outlet is located near the middle of the tank to prevent the grease and solids from passing through the tank. The longer the wastewater stays in the trap, the better the separation. As the layers of grease and solids increase (thicken), the retention time in the tank is reduced, separation is less complete, and grease and solids are allowed to pass through to downstream plumbing.²



A grease trap is smaller and is usually located indoors below the surface or in the basement and can be cleaned by maintenance staff or employees; interceptors have a much larger volume, are located underground, outside of the facility, and are cleaned by a contracted service.

Service Provider Information

The frequency of required maintenance will be different for each restaurant. Grease interceptor pumping frequency can vary from once a month to bi-annually. Ask your interceptor service provider to take periodic grease and sludge layer measurements to determine the right frequency for your business.

A professional interceptor cleaning consists of:

- Removing upper grease layer
- Removing lower solid layer
- Removing all water
- Scraping all 4 walls for complete removal of grease and solids
- Water is not pumped back into the interceptor.

Please verify that your contracted service:

- Disposes of waste at an EPA-approved site
- Has current disposal permits/certificates
- Has completed Department of Transportation inspections
- Has suitable insurance
- Provides documentation of service
- Responds to emergencies
- Grease spill and overflow plan
- Has good references



Business Name	Address	Phone #
Art's Sanitation	16373 Weld County Road #28 Platteville 80651	970-785-6335
Sullivan Septic	P.O. Box 1288 Longmont 80502	303-772-4019
Colorado Pumping	4475 Eldridge St. Golden 80403	303-278-1884
Denver Sanitary	3161 Walnut Street Denver 80205	303-295-0331
Drain Solvers	P.O. Box 791 Longmont 80502	303-682-9307
Gordon's American Waste	1815 E 39th Avenue Denver 80205	303-295-0077
John Todd Co.	9464 N. Moore Road, Littleton 80125	303-791-0520
Olson Brothers Pumping	11800 W. Auburn Ave. Denver 80228	303-986-7867
M&M Companies, Inc.	1835 West Union Ave., Unit 21-C Englewood 80110	303-591-7230

It is important that you do not treat your sinks and drains like a garbage can. Garbage disposers can overload a grease interceptor with solids, making it much less efficient and requiring it to be pumped out more frequently. Additionally, if interceptors are not pumped and cleaned out regularly, acids will form, as the grease turns septic. These acids are very destructive and over time can dissolve baffles, piping, and tank walls.³

Proper maintenance will protect the sewer lines downstream from grease build-up and potential sewer overflows, and it will ensure a long life for your grease trap.

Biological Treatment of Grease Traps

Many restaurants have started using regular biological treatment, also called bioaugmentation, to degrade grease and reduce buildup. These products can help to reduce grease problems if you follow guidelines to avoid pushing grease down the line.

- DO carefully review the product information and Material Safety Data Sheet (MSDS).
- DO consider only products that are not highly acidic or basic (look for a pH between 6 and 10).
- DON'T use products that rely on solvents, surfactants, or emulsifiers. These products liquify the grease so that it flows downstream, where the grease resolidifies on sewer system walls, causing blockages.
- DO continue regular cleaning and removal of grease and solids from the grease trap or interceptor. The biological treatment may allow reducing the cleaning frequency.

Used Cooking Oil Recycling

Waste grease from a kitchen is commonly recycled and is a valuable commodity for making bio-diesel fuel, soap, animal feed, and pet food. The proper disposal of kitchen grease is recycling. The PACE Program recommends that all facilities that have a fryer or that produce significant amounts of used grease need to work with a recycling service and collect the grease in the provided grease bin. If you collect grease for recycling, remember:

- TAKE care when filling the container; do not splash grease on the lid or on the ground.
- IF there is spillage, dry wipe the grease with paper towels or use absorbent materials (kitty litter) to soak up the oil and sweep, then discard to the trash. IF grease remains, it will enter storm drains, cause odor problems, and invite rodents to your property.
- KEEP containers covered with the lid, as rain is heavier than oil, and can cause a grease overflow.
- DON'T place trash, water, or food into the container. Items may become rancid and cause odor problems.
- DON'T overfill containers. Call for collection when the container is about $\frac{3}{4}$ full. This will reduce the chance of spills during pickup.

Used Cooking Oil Service Providers

Business	Contact Details	Comments
Jerry & Sons	1321 W. 71st Pl. Denver 80221 303-429-6423	55-gallon drum replaced with every service.
Darling International	5701 York St. Denver 80216 303-295-7551	Large vessel replaced every 3 years, or earlier at cost to the customer. Used to make animal feed, pet food.
Mahoney Renewable Resources	1835 West Union Ave., Unit 21-C 303-995-5878	A secure, leak-free tank that is emptied before it reaches $\frac{3}{4}$ of its capacity.
Rocky Mountain Sustainable Enterprises	1708 Walnut St. Boulder 80302 303-544-1500	55-gallon drum replaced with every service.
Sustainable Oil Service	www.sustainableoilservice.com 303-444-8495	A secure container that is picked up and used to make biodiesel.

Helpful Resources

See the PACE website for a list of helpful resource sheets

www.pacepartners.com

References:

- [1] "Eliminating Fats, Oil and Grease From Our Sewers." City of Los Angeles Stormwater Program. Aug. 2007. Dept. of Public Works. Aug. 2007 www.lastormwater.org/Siteorg/education/bmps/sewercomm.htm
- [2] "Caring For Your Grease Trap." Austin Water Utility's Office of Industrial Waste. Dec. 2003. Austin Water Utility. Apr. 1 2006 www.ci.austin.tx.us/water/downloads/wwwssd_iw_greasepres.pdf
- [3] "Fats, Oils, & Grease: The Food Service Industry." Industrial Pretreatment Program. Dec. 2005. City of Longmont. Apr. 2006 www.ci.longmont.co.us/pwwu/ipp/FOG.htm

The contents of this sheet are accurate to the best knowledge of PACE staff. All references to products and services are for informational purposes only and do not represent an endorsement of any particular product or entity by the PACE Program.



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