

Fat, oil and grease in the sewerage system

The purpose of this document is to advise food establishments on the need to keep fats, oils and grease out of the drainage system.

Environmental impact

Fat, oil and grease cause major problems to the sewerage system. When they are disposed of down kitchen sinks or drains they cause blockages; when they enter rainwater pipes or gullies they cause pollution in streams and rivers.

This document covers:

- History
- Housekeeping
- Legal requirements



Pollution entering a stream



Fat building up in a manhole

History of the problem

The eating habits of the nation are changing, people are eating out much more frequently than they did in the past and the number of food outlets is increasing.

Fat, oil and grease in liquid form may not appear to be harmful, but as it cools it congeals and hardens. It sticks to the inner lining of drainage pipes and restricts the wastewater flow causing the pipes to block. Using detergents or bleach may appear to help but this is only temporary as the mixture soon turns back to thick or solid fat.

The number of blockages and pollution incidents relating to fats, oils and greases are also increasing. There are approximately 200,000 sewer blockages throughout the UK every year of which up to 75% are caused by fat, oil and grease. Clearing these blockages costs millions of pounds a year which is reflected in customer's bills. Businesses also risk blocking their own drainage systems, which results in extra costs being incurred in clean-up efforts. These fat blockages can result in sewer flooding, odour problems and the risk of rat infestations, both near and beyond your premises.

In fact, every outlet disposing of fat, oil and grease into sinks and drains is at risk of experiencing damaging and costly drainage problems but there are ways that you can help.

House-keeping

Stop and think - not down the sink

The purpose of these guidelines is to ensure that fats, oils, grease and food waste do not enter the drainage system.

Training

Training for all staff should include instruction on why it is important to keep fats, oils, grease and food waste out of drains and sewers. It should be explained to each member of staff that failure to do this can lead to expensive costs for the business to unblock drains and clean up the area. Bad practice can result in a public health nuisance, prosecution and unwanted negative publicity as well as disruption to normal business.

Preparation prior to washing

Plates, pots, trays and utensils should be scraped and dry wiped with a disposable kitchen towel prior to putting them in the sink or dishwasher and the scrapings placed in the bin. All sinks should have a strainer for placing in the plug hole to prevent waste food from entering the waste pipe. Waste food collected in the strainer should be placed in the rubbish bin ready for collection.



All sinks should have a strainer or a sieve for placing in the plug hole to prevent waste food from going down the drain. Waste food collected in the strainer should be placed in the rubbish bin.



Dry wipe pots and utensils prior to washing

House-keeping

Removal of fat, oil and grease

Grease traps/grease interceptors

Grease traps are specially designed units which are placed in drain pipes and separate the fats, oils and grease from the rest of the wastewater. The wastewater then continues to flow to the sewage works for treatment while the grease is retained in the trap to be collected by a licensed waste oil collector at regular intervals. These units can be highly effective if they are correctly installed, serviced and maintained. A written record of maintenance must be kept. Your local Environmental Health Officer may be able to assist on the location and size of the unit to suit your premises to ensure it is efficient at preventing the grease causing problems in the drains.

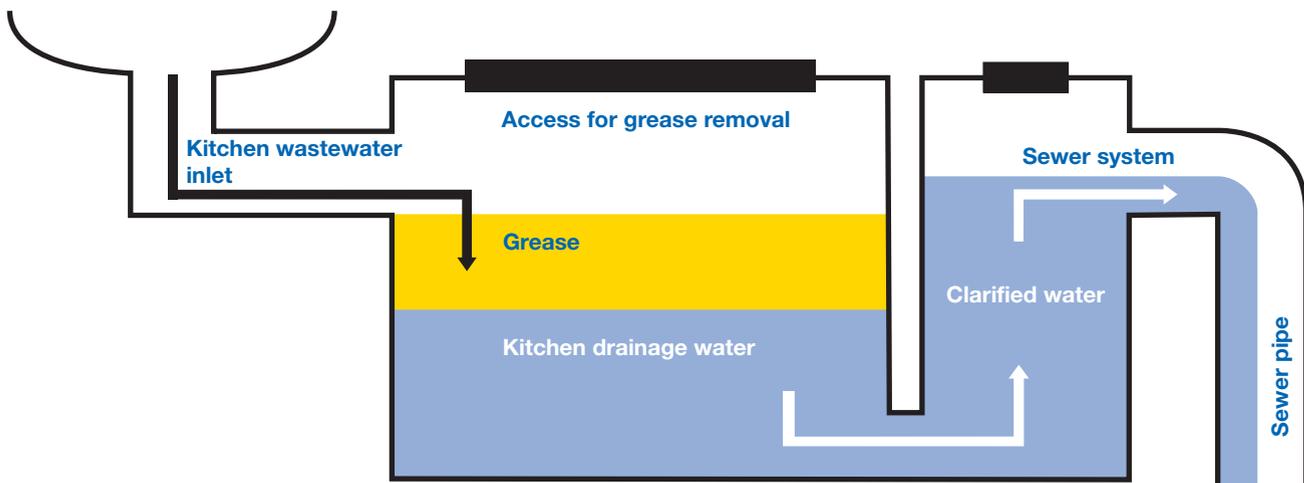
Food macerators

These appliances are designed to chop and grind food into small pieces prior to disposal into the drainage system. However, fat combines again in the pipes resulting in the need for expensive blockage clearance. Drains and sewers should not be used for the disposal of food and these units encourage bad practice. Our advice is not to instal them. Waste food should be placed in the bin and collected by a commercial waste contractor.

Enzyme dosing systems

Enzymes are special bacteria designed to treat fat and grease in the drainage systems. They are supplied by specialist companies and can be used with grease traps. Enzymes can be effective where properly used, but keeping fat, oil and grease out of drains in the first place should make them unnecessary.

Diagram of an "under-the-sink" grease trap



Waste oil storage

Waste oil comes from sources such as deep fat fryers, woks, frying pans and baking trays. Waste oil and fat should be collected in an air-tight sealed container to prevent odours and vermin. The container should be stored in a secure area to prevent spills and leakages. It should be kept clear of all drains.



Poor storage of waste cooking oil

Recycled waste cooking oil

The collected waste oil will either be used for bio-diesel as a raw material for transport fuel or for incineration for the generation of electricity. The government supports recycling of waste cooking oil as it reduces the dependency on landfill sites and the use of fossil fuels for energy generation. Water UK supports recycling as it ensures that waste oil stays out of the drainage system.



Pour waste oil into an empty drum for collection

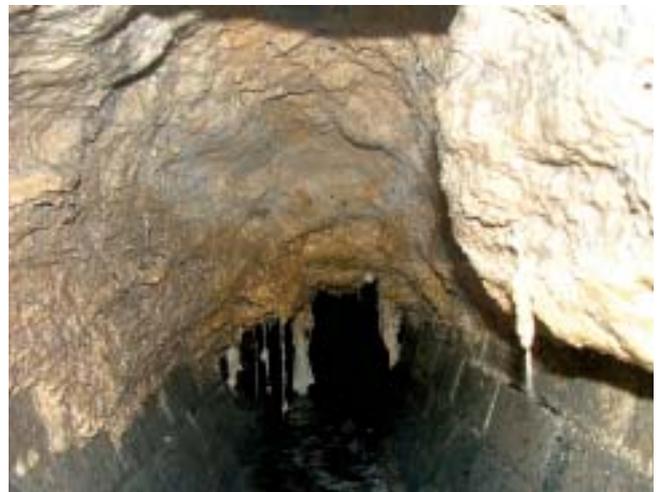
Waste oil collection

In the past, food outlets were often paid for their waste oil, which could then be used as a high energy diet for livestock. However, due to a change in legislation, this route is now closed and the oil has to be collected commercially for disposal or recycling.

The Environment Agency licenses waste oil collectors and they can provide a list of those operating in your area. You must ensure your waste contractor is an Environment Agency licensed waste carrier and that they give you a copy of the waste transfer note.

You should also check that the waste is being taken to a Licensed Waste Management site. Waste transfer notes should be kept for two years and made available for inspection under Section 34 of the Environmental Protection Act 1990.

These simple steps will not only help reduce blockages, but will also eliminate costs, negative publicity and prosecution that flooding would bring to your business. They could even reduce water usage, helping to preserve supplies and lower your bills.



Fat beginning to block a sewer

Stop and think

– not down the sink

Checklist for managing fats, oils and grease in your kitchen

DOs



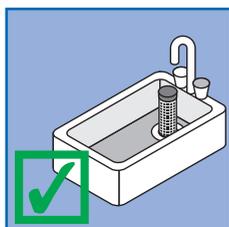
Do wipe and scrape plates, pans and utensils before washing (and put the waste into the bin).



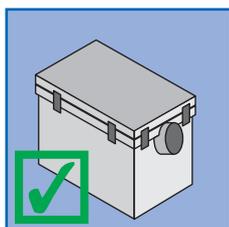
Do collect waste oil in a suitable secure container.



Do arrange for oil to be collected by a licensed waste contractor.



Do use strainers in sink plug holes (and empty contents into the bin).



Do maintain Grease Traps and Enzyme Dosing equipment regularly.

DON'Ts



Do not put cooking oil, fat or grease down the sink.



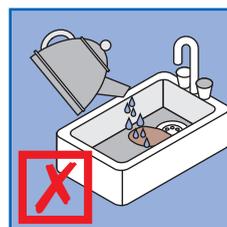
Do not pour waste oil, fat or grease down the drain.



Do not put food scrapings into the sink (place in the rubbish bin).



Do not sweep waste into floor drains (place rubbish in bin).



Do not pour boiling hot water down the sink to try to dissolve fat and grease. It does not work!

The above simple guidelines will significantly help to maintain free flowing water both within the drains of the premises and in the sewerage system.

Legal requirements

There are a number of legal requirements in place to help prevent fats, oils and grease entering the sewerage system. Failure to adhere to these can lead to enforcement and prosecution.

Water Industry Act 1991

It is a criminal offence under section 111 of the Water Industry Act 1991 to discharge into the public sewers any matter which may interfere with the free flow of the sewerage system. In addition, where the water company has incurred costs in dealing with the detrimental effects on the sewers e.g. removing blockages cleaning sewers, investigating and remedying flooding or pollution incidents, it can take legal action to recover these costs. Prosecution can result in substantial fines or even imprisonment.

Environmental Protection Act 1990 Duty of Care

Every commercial premises arranging collection and disposal of waste (including waste cooking oils and fat) must comply with the requirements of Section 34 of the Environmental Protection Act 1990 and the Environmental Protection Act (Duty of Care) Regulations 1991 as amended. The objective of the Duty of Care is to ensure that all waste is managed correctly from the place where it is produced to the point of final disposal. The producer of the waste must therefore ensure that the collector is registered with the Environment Agency as a “registered waste courier” and keep a record of all collections. The producer of the waste must also be satisfied that the waste is taken to a licensed disposal site. An authorised officer of the local authority can require production of documentation relating to the registration of the waste couriers. Failure to produce the documents can result in a £300 fixed penalty notice or prosecution. The local authority has power to carry out any required work and recover their costs in cases of default by the owner. Smells, effluents, accumulation of refuse or any premises in such a state as to be prejudicial to

health or a nuisance where a statutory nuisance exists the local authority has to serve an “abatement notice” under S.80 of the Act. Failure to comply can result in prosecution and the local authority also has the power to carry out work to abate the nuisance and recover their costs.

Animal By-Products Regulations EC 1774/2002 (ABPR)

From 1 November 2004 waste cooking oil from catering premises can no longer be used as an ingredient in animal feed. This is to safeguard the food chain. The collection of waste cooking oil must be via a licensed waste carrier. From October 2007 liquid waste may not be disposed of at landfill.

Building Act 1984

Section 59 of the Building Act 1984 enables a local authority to require satisfactory provision for drainage of an existing building by service of a notice on the owner. This can include a requirement for the installation of a grease trap.

Food Safety Act 1990

Local authorities are authorised to inspect premises under the Food Safety Act 1990. Problems arising from the effect of fats, oils and grease on drains, resulting in a failure to comply with the Food Hygiene Regulations, could result in prosecution or an emergency prohibition order preventing trading from the premises.

Note

Where reference is made to Acts of Parliament and Regulations, it should be noted that subsequent amendments or replacements equally apply.