

Guidance

Pollution prevention for businesses

How businesses and organisations can avoid causing pollution from oil and chemical storage, car washing, construction and other activities.

From: <u>Department for Environment, Food & Rural Affairs</u>
(/government/organisations/department-for-environment-food-rural-affairs) and
Environment Agency (/government/organisations/environment-agency)

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Applies to England

Guidance for Northern Ireland

(https://www.daera-ni.gov.uk/topics/pollution)

Guidance for Scotland

(https://www.sepa.org.uk/regulations/pollution-prevention-and-control/)

Guidance for Wales

(https://gov.wales/environment-climate-change)

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You must not let your business or organisation cause or allow pollution. Pollution is when any substance that harms or could harm people or the environment gets into the air, water or ground.

If you pollute, you could get an unlimited fine, go to prison for up to 5 years, or both. You may also have to pay for the whole cost of the clean-up. There could be further costs such as paying compensation to third parties, higher insurance premiums or

Call the Environment Agency pollution incident hotline (https://www.gov.uk/report-an-environmental-incident) immediately if polluting materials have entered or could enter a watercourse or soak into the ground, for example from a ruptured tank, leaking pipe or uncontained spill.

Polluting substances

loss of contracts.

It's not just obviously hazardous substances such as pesticides or strong acids that can harm people or the environment. Any substance that's not found naturally in an environment could cause pollution, for example detergents, concrete slurry or paper sludge. Even natural substances such as milk can pollute.

Some substances, such as pesticides, are immediately toxic to creatures. Others can cause harm by reducing the amount of oxygen in rivers and streams. Some have longer-term impacts by interfering with the ability of creatures to reproduce.

You can reduce the risk of pollution by following this guidance and other specific guidance for:

- <u>oil above ground (https://www.gov.uk/oil-storage-regulations-and-safety)</u>, including petrol, diesel, mineral oil, heating oil, vegetable oil or hydrotreated vegetable oils (HVO)
- <u>petrol in underground tanks (https://www.gov.uk/guidance/prevent-groundwater-pollution-from-underground-fuel-storage-tanks)</u>
- <u>silage</u>, <u>slurry</u> and <u>agricultural fuel oil</u> (<u>https://www.gov.uk/guidance/storing-silage-slurry-and-agricultural-fuel-oil</u>)
- <u>sheep dip (https://www.gov.uk/guidance/sheep-dip-groundwater-protection-code)</u>
- <u>pesticides, biocides, herbicides and other chemicals</u> (http://www.hse.gov.uk/crd/)

- <u>solvents</u> (https://www.gov.uk/guidance/prevent-groundwater-pollution-from-solvents)
- <u>air pollution (https://www.gov.uk/preventing-air-pollution/boilers-and-furnaces)</u>

You may need <u>an environmental permit</u> (https://www.gov.uk/guidance/check-if-you-need-an-environmental-permit) or other authorisations if you're discharging substances to surface water or groundwater, working with waste or operating an installation, for

example a metal finishers or a food production site. In some cases this may be even if you are discharging to a foul sewer.

Activities that produce contaminated water

If your business produces contaminated water or other polluting liquids ('trade effluent') you must make sure it does not cause pollution.

Such activities may include:

- vehicle washing, wheelie bin washing or yard cleaning
- manufacturing processes
- water cooling
- cleaning of food production areas or ovens

Assess if it's possible to redesign your process to avoid or minimise creating contaminated water, for instance by using dry systems. If unavoidable, you should reuse or dispose of contaminated water by:

- collecting it in a sealed system for reuse, treatment on site or removal by a <u>registered waste carrier (https://www.gov.uk/guidance/access-the-public-register-for-environmental-information)</u>
- putting it down the foul water (or combined) drain if you've got permission from your water company contact them to get consent

Correct use of drains

Surface water drains discharge directly to the environment. You must make sure contaminated water from your premises and business activities goes into the foul drain or is recycled or removed by a registered waste carrier (https://www.gov.uk/guidance/access-the-public-register-for-environmental-information).

Drainage systems can very quickly transport pollutants off site and into the environment. It's important to make a plan of your drains to help you use them correctly, carry out maintenance and deal more effectively with pollution if there's a spill, leak or other incident. The plan should show:

- where the drains are
- the types of drains surface water, foul water, or combined
- direction of flow
- where drains leave your property
- where they discharge into, for example, a watercourse, clean-water soakaway or sewage treatment works

Everyone who works at the site should be able to easily find and understand the plan.

You may need to get a full drainage survey if you do not know what types of drains your business has.

If you make changes to your site, check your drain plan to make sure you do not connect to the wrong drains. Update your plan with the changes.

If you have an environmental permit, your drain plan will be part of your <u>environmental management system</u> (https://www.gov.uk/guidance/develop-a-management-system-environmental-permits#what-to-put-in-your-management-system-and-how-to-organise-it).

Use the right drain

Make sure that:

- contaminated water drains into the foul water drain connected to a foul sewer - ask your water company for permission
- only clean water drains into the surface water drain or soakaway (a special pit that allows clean, non-polluting water to drain into the ground)

If you have a combined drainage system it can handle both types of water, but you'll still need permission from your water company to use it for contaminated water.

Never put fats, oil, grease or solid items down drains. They may block, back-up and cause pollution.

If you run a restaurant or other business that creates contaminated washwaters with waste oil or grease that could be discharged to sewers or drains, you should install fat and sediment traps to prevent blockages. You must get permission from the water company or private sewer owner to discharge this waste.

Check your drains

Check your drains regularly for:

- blockages or leaks clear or repair them to prevent pollution
- <u>misconnections (http://www.connectright.org.uk/)</u>, where your drains have been connected to the wrong part of the sewer network you must fix any misconnections or you could be fined

You must also follow the <u>rules on package treatment plants and septic</u> <u>tanks (https://www.gov.uk/permits-you-need-for-septic-tanks)</u> if you have one.

Mark your manhole covers

Paint your manhole covers according to the standard code:

- blue for surface water
- red for foul water
- red 'C' for a combined system where all water goes to a treatment plant

Show the direction of flow with a painted arrow on the manhole cover. Mark a corresponding arrow on the ground so that if a manhole cover is removed it can be replaced with the arrow pointing in the right direction.

Install an oil separator

You may need to install an oil separator (interceptor) or other device to remove oil from water that drains off hard surfaces.

If HVO is stored or used on the area your separator drains to you must speak with your supplier about additional filters that may be needed. HVO can mix with water and be released from the separator. If HVO reaches the water environment and starts to break down it will remove oxygen from the water. The oxygen levels in the water could fall to levels where fish and invertebrates will die.

Typically a separator is needed for any site with a risk of oil contamination, such as:

- car parks larger than 800m² or for 50 or more parking spaces
- smaller car parks that discharge to a sensitive environment, such as a marsh that has been designated as a nature reserve
- vehicle maintenance areas
- roads
- refuelling facilities

The British Standard says separators should be fitted with an automatic warning device or high level alarm. From 1 January 2021, this has been a legal requirement for separators supplied in England, Wales and Scotland under the Construction Products Regulations (https://www.gov.uk/guidance/construction-products-regulation-in-great-britain).

The British Standard also says separators should:

- have an integrity test at least every 5 years
- have full service and maintenance records available for inspection

The type and class of separator you need will depend on the activity and where the discharge is directed to.

Oil separators do not work if they are incorrectly sized, not maintained or there's detergent in the water, for example, from car washing. Use an alternative method such as a sealed treatment system, sustainable drainage system or waste removal service if necessary.

All oil separators have to be maintained to work properly.

Maintain an oil separator

You should check the separator on a regular basis, British Standards recommend checking at least every 6 months. Look for:

- how much oil and silt has built up
- that all the parts are working

You can check the manufacturer's instructions for how to do this and what to look for.

You should empty and service the separator if:

- a significant amount of oil or silt has built up
- there is an oil spill
- any separator alarms activate

You should use a waste removal company who has experience in cleaning and maintaining separators. The waste removal company must have a waste carriers licence.

Any trapped oil or sediment that the waste company removes from the separator is hazardous waste and so it must be:

- moved under a hazardous waste consignment note
- disposed of to a permitted facility that can accept the waste type

You must refill any separators with clean water before you put them back into use. Do not use settled water that was removed from the separator for this. If you do not refill it with clean water the separator will not hold the oil if there is a spill or accident.

Storing materials, products and waste

Whichever type of storage you have you should create a <u>pollution</u> incident response plan (https://www.gov.uk/guidance/prevent-groundwater-pollution-from-solvents#prepare-for-emergencies-create-a-pollution-incident-response-plan) to minimise pollution if there's a leak, spill or fire.

Above ground storage

Read the specific guidance if you store any type of <u>oil above ground</u> (<u>https://www.gov.uk/oil-storage-regulations-and-safety</u>).

If you store anything that might pollute the environment, for example any liquids, chemicals, food, drink or waste, make sure your containers are:

- in good condition, including any pipework and valves, and you have an inspection and maintenance programme
- protected against theft and vandalism
- protected if they' re in a <u>flood risk area (https://www.gov.uk/prepare-for-a-flood/find-out-if-youre-at-risk)</u> for example, moved to another

location, secured so they cannot float (ask the manufacturer how to do this) or protected by flood barriers

• clearly marked so people know what's in them and about any risks or hazards

Hazardous and non-hazardous waste must be stored separately. This reduces the risk of fire and means that if there is an incident - such as a spill - the substances cannot mix.

You also need secondary containment for your containers, for example a drip tray or 'bund' with an impermeable base and walls to contain or catch leaks or spills. The Environment Agency recommends the following capacities for secondary containment:

- at least 25% of the capacity of storage containers up to 205 litres capacity
- at least 110% of the capacity of storage containers over 205 litres capacity

You must <u>make sure your secondary containment is suitable</u> (https://www.ciria.org/ItemDetail?iProductCode=C736F&Category=FREEPUBS) for the substances you store, including its size and construction. You must:

- not store other materials within a bund
- make sure you remove accumulated rainwater regularly

You must not allow the contents of containers to get into surface water or groundwater. The Environment Agency advises that you place your storage at least:

- 10m from watercourses, open drains, gullies, unsurfaced areas or porous surfaces
- 50m from wells, springs or boreholes

Below ground storage

Substances that can be stored underground include:

- liquefied flammable gases
- liquid fertilizer
- fuel additives
- biofuels
- chemicals

- liquid wastes and effluents
- sewage effluent

Read the specific guidance if you store <u>petrol in underground tanks</u> (https://www.gov.uk/guidance/prevent-groundwater-pollution-from-underground-fuel-storage-tanks). In some sensitive locations where groundwater is taken ('abstracted') to supply drinking water, you are not permitted to store polluting substances.

If you store anything that might pollute the environment in below ground tanks you must make sure:

- your storage is suitable for the substances you store
- you follow the manufacturer's minimum recommended maintenance programme for your tanks
- heavy lorry routes do not pass over the storage tanks or their pipework as these can cause vibration damage over time

You will not be able to visually check your containers for damage or leaks so:

- install a leak detection system such as an interstitial monitoring device with automatic alarms
- make any repairs as a matter of urgency
- clearly mark delivery pipes with the tank volume and substance stored to ensure deliveries are made to the correct tanks

Storing hazardous substances

If you store more than <u>a specific amount of a hazardous substance</u> (http://www.hse.gov.uk/pubns/books/l111.htm), for example explosives or flammable liquids, you must register with the <u>Control of Major Accident Hazards (COMAH) competent authority</u> (http://www.hse.gov.uk/comah/notification/index.htm#who).

Your business will also need to apply to your planning authority for hazardous substances consent
hazardous-consent.htm) and follow other Health and Safety Executive guidance (for example, on displaying warning notices
(http://www.hse.gov.uk/pubns/books/hsr29.htm)).

Old containers

When you stop using a container you must make sure it does not cause pollution. Above or below ground tanks need specialist decommissioning then removal off site by a registered waste carrier.

Find out more about <u>decommissioning an underground storage tank</u> (https://www.gov.uk/guidance/prevent-groundwater-pollution-from-underground-fuel-storage-tanks/decommissioning-an-underground-storage-tank).

Your original supplier may take away undamaged drums and intermediate bulk containers for reuse.

Unloading and moving potential pollutants

Make sure you have procedures to prevent pollutants from spilling or leaking when they're being delivered, loaded or moved around your premises.

Before you order new supplies, check the quantity in your containers - only order what can safely fit in the containers so you do not overfill.

You should:

- load and unload in suitable places on your site make sure there are no open drains to surface water and carry out a risk assessment
- use pre-arranged routes for deliveries and movements
- have a spill kit, suitable to the products on your site, available near storage, loading areas and transfer routes
- supervise deliveries, and make sure the people involved know what to do if there's a spill and how to use the spill kit safely and effectively

Construction, inspection and maintenance

It's up to you to assess and minimise pollution risk at your site, and know how you'll respond if there is an incident. You can also make a pollution incident response plan (https://www.gov.uk/guidance/prevent-groundwater-pollution-from-solvents#prepare-for-emergencies-create-a-pollution-incident-response-plan).

You should:

- prevent water from entering excavations by using cut-off ditches or covering the excavation
- collect contaminated water (for example, run-off or water pumped out of excavations) in a system where it can be recycled or treated, such as a settlement tank or lagoon
- carry out activities involving potential pollutants, such as concrete or fuel, in dedicated areas which are designed so that spills, leaks, drips and contaminated run-off can be captured and properly disposed of
- protect stockpiles (for example soil, sand, or hardcore) so that materials are not blown or washed away

You can <u>read guidance on dewatering excavations and environmental permits (https://www.gov.uk/guidance/dewatering-building-sites-and-other-excavations-environmental-permits)</u>.

Work in, over or near a river, stream, lake or pond

You must get permission from the Environment Agency (https://www.gov.uk/flood-defence-consent-england-wales) before you start work in, over or near a main river (https://environment.maps.arcgis.com/apps/webappviewer/index.html? id=17cd53dfc524433980cc333726a56386). There may be a charge for any permission given.

Make sure you do not pollute rivers or other watercourses by:

- stirring up silt, dropping polluting materials from a bridge or riverbank or pumping out water from excavations into a watercourse
- allowing contaminated water from where you' re working to flow or seep into a watercourse
- cleaning drains or washing vehicles and equipment such as concrete mixers

Plan how you' re going to avoid causing pollution, for example by enclosing the area you' re working in with a cofferdam. You might need to get an impoundment licence (https://www.gov.uk/guidance/water-management-abstract-or-impound-water).

If you plan to use herbicides to control weeds in water or on the banks next to a body of water or watercourse you'll need to <u>apply for Environment Agency permission</u>
(https://www.gov.uk/government/publications/application-to-use-herbicides-in-or-near-water).

Set up an environmental management system

You may also need to <u>develop an environmental management system</u> (EMS) (https://www.gov.uk/guidance/develop-a-management-system-environmental-permits#what-to-put-in-your-management-system-and-how-to-organise-it) to help avoid pollution and act appropriately if an incident does occur. You can use your <u>pollution incident response plan</u> (https://www.gov.uk/guidance/prevent-groundwater-pollution-from-solvents#prepare-for-emergencies-create-a-pollution-incident-response-plan) to develop your EMS.

You must have an EMS if you have an environmental permit.

Contact the Environment Agency

General enquiries

National Customer Contact Centre PO Box 544 Rotherham S60 1BY

Email enquiries@environment-agency.gov.uk

Telephone 03708 506 506

Telephone from outside the UK (Monday to Friday, 8am to 6pm GMT) +44 (0) 114 282 5312

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