

Domestic heating oil storage tanks - preventing leaks



What you can do

Could you have an oil tank leak?

If you or someone you know has oil fired central heating, this leaflet may help to avoid the considerable costs and inconvenience of an oil leak.



Oil is one of the most common causes of contamination. It can affect human health and property. It can also pollute water courses, damage plants and wildlife, make soil infertile and ruin habitats. Over the last few years there have been an increasing number of pollution incidents caused by faulty or badly maintained domestic central heating oil tanks. Leaked oil can be very difficult and expensive to clean up. In some circumstances houses have had to be evacuated because oil soaked into the ground nearby and produced fumes inside making it impossible to live in the properties.

This leaflet gives advice on how to prevent a leak from your oil fired central heating system and what to do if you do have an oil leak or a spill during a delivery. A little time and money spent on maintenance now, may avoid clean-up costs of thousands of pounds in the future.

WHAT CAN GO WRONG?

Below are a few examples of what can happen if things go wrong. These are real incidents:

- The oil supply pipe between the tank and the house developed a leak. Heating oil contaminated the ground beneath a neighbour's house. The neighbour's house had to be evacuated and ground floor completely removed to deal with the contaminated ground.
- A newly installed oil fired boiler was not connected up properly. On firing the system, oil was pumped out across the floor inside the house. Oil soaked into the ground at the wall/floor junctions. Fumes filled the house for several months and the house had to be evacuated while the floors were removed and the contamination cleaned up.
- A central heating oil tank mounted on concrete block supports corroded over time. Oil leaked out of the tank, staining the supports and soaking into the ground below. Water pipes to two houses ran under the spill area. As oil can penetrate plastic water supply pipes, there was a serious risk of the water supply being contaminated. The water pipes had to be replaced and the contaminated soil removed.
- All of the above incidents cost several thousands of pounds to rectify and caused considerable stress and disruption to the residents.

Keeping safe

HEALTH RISKS

An oil leak in or near your house can be a risk to your health. Fumes from the oil can give people symptoms such as:

- Feeling drunk
- Sleepy
- Fuzzy head
- Slow to react
- Dizzy
- Sore throats
- Headaches
- Nausea
- Skin rashes

HAZARD



“ If levels of oil fumes are very high, it could be possible for someone to pass out as a result. If you think you are suffering from any of these you should also consult your doctor.

Oil can also affect underground plastic pipes such as water supply pipes. Oil can penetrate the plastic and contaminate the water giving rise to odours and tainted water. Drinking water contaminated with oil can be a serious risk to your health.

”



INSURANCE

Not all household insurance policies cover for this type of leak. Check your insurance policy and if it does not cover oil leaks, consider including this in your cover. If a leak occurs and you are not insured, you may have to pay for the clean-up out of your own pocket. Also check any guarantees which came with the boiler, tank or from the installers. You may be able to seek assistance from one of these if the guarantee is still in force when the incident occurred.

Preventing a leak

YOU SHOULD:

- Reduce pollution risk by siting fuel tanks and pipework as far away from drains, streams and ponds as possible.
- Provide secondary containment for your tank and its ancillary equipment even if you are not required by law to have it.
- If you're having a new tank and/or pipe work installed use OFTEC registered installation technicians. This will ensure that the relevant British Standard, as well as the manufacturer's installation instructions are followed.
- Make sure your tank has an 'Oil Care' notice stuck on it, with information about what you need to do in the event of a spillage. These should be supplied with new tanks. The tank should also be clearly labelled with the safe capacity and fuel type. If you do not have one of these they are available from the Environment Agency.
- Inspect your tank, its ancillary equipment and pipework at least weekly for corrosion, damage, interference and signs of leaks.
- Use an OFTEC registered technician to service and inspect your boiler, tank, ancillary equipment and all pipework. This should be carried out at least once a year.
- Be alert to possible leaks by checking your oil usage pattern. A small leak can, over time, add up to a large loss of fuel. This is especially important if underground pipes are used.
- If you notice or suspect a leak get it investigated and repaired by your OFTEC registered technician immediately.
- Check your current fuel stocks carefully before re-ordering oil. Do not allow your tank to be overfilled.
- Never leave site gauge valves open. Don't use site gauge valves that don't close automatically. Only use auto-close British Standard sight gauge valves. The valve should only be activated when you take a level reading. If you want continuous level monitoring get suitable equipment installed and have the sight gauge removed.
- Always supervise your oil delivery. Discuss delivery procedures with your fuel delivery company, check that they are happy with your tank and its delivery arrangements from a health, safety and pollution perspective.
- If your tank has a fill point that is remote from the tank, secondary containment for the tank should be provided. In this situation, an overflow prevention alarm/device for the tank is a requirement of BS 5410 Part 1 1997, and a legal requirement of the Control of Pollution (Oil Storage) (England) Regulations 2001 apply.
- Check your home insurance policy – you may not be covered for loss of oil or pollution clean up costs. Also check for any guarantees or warranties on any of the equipment.
- It's a good idea to have an oil spill kit with absorbent materials, drain blockers and leak sealing putty to help you deal with a spill or leak.

Replacing your fuel tank

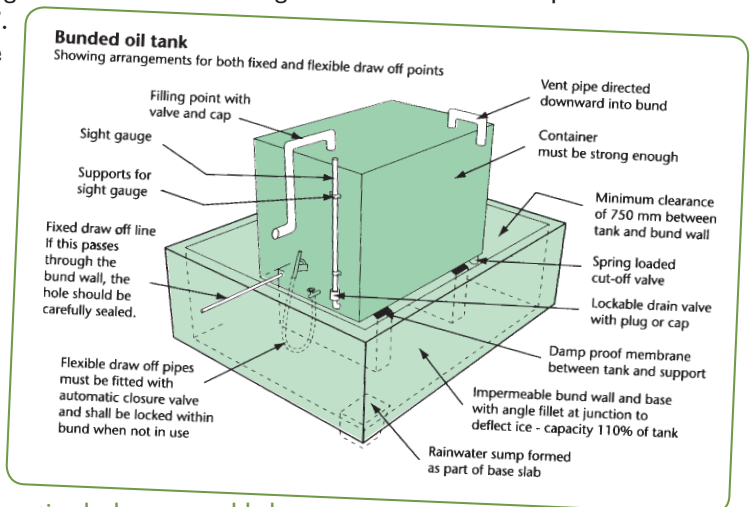
You must make sure that any new or replacement oil tank complies with the Building Regulations. These are controlled by your Local Authority. You will need a Building Notice as a minimum (if the work isn't already covered by a full Building Regulations approval) to show that it complies with the Building Regulations. Alternatively you could use a qualified and registered tank technician who, as a "Competent Person", can self-certify their building regulations work. The Oil Firing Technical Association (OFTEC) registers trained and qualified tank technicians.

To comply with these regulations you must make sure that the tank and pipes are correctly installed, constructed and protected to reduce the risk of oil escaping and causing pollution. A notice with information about what to do if oil is spilt or lost must be fixed to the tank. The following risk assessment must be carried out. If any of these points apply, your oil tank needs secondary containment.

The tank

- Has a capacity of greater than 2,500 litres (also refer to the Control of Pollution (Oil Storage) (England) Regulations 2001 for tanks greater than 3,500 litres capacity.)
- Is sited within 10m of a 'controlled water' such as a stream, ditch, river, lake, pond, canal or coastal water.
- Is sited where any oil spillage could run into an open drain or loose fitting manhole cover.
- Is sited within 50m of sources of drinking water, such as a well, borehole or spring.
- Is sited over hard ground or hard surfaced ground that could allow spilled oil to enter 'controlled water'.
- Is sited where the tank vent pipe outlet cannot be seen from the fill point.

British Standard BS5410 Part 1 1997 also applies to oil storage tanks for home heating in addition to building regulation requirements.



REMEMBER in preventing leaks you could also be preventing possible legal action for contaminating drinking water supplies, streams or rivers. The legislation relating to contaminated land operates a polluter pays principle. If your tank pollutes a neighbour's, or your own property or a water course, you could face potential legal action and the costs of the clean up.

If you find a leak

WHAT YOU SHOULD DO IF YOU FIND A LEAK

If you find a leak of oil on your system you should:

- Try and find out where the leak is coming from and stop further oil leaking as soon as possible. (This may include having the tank emptied as a matter of urgency).
- Any taste or smell of oil in your drinking water should be reported to the water company immediately. Do not drink any water suspected to be contaminated until tests have been carried out.
- Call the Environment Agency spill hotline on 03708 506 506.
- Call in an engineer or other competent person to repair/replace the tank or pipe work as necessary.
- Contact your insurers to notify them of the incident and for their assistance.
- Contact the Environmental Health section of the Council. You should note that we cannot do the clean up for you and whilst we can offer general advice, you may need to employ a specialist company/consultant to do a ground investigation and provide specific recommendations for any clean up that may be required.
- Taking action quickly will help you save money, by preventing more ground becoming contaminated.
- Taking action quickly may avoid the need for the Council to declare the area “Contaminated Land” under the Environmental Protection Act 1990 Part IIA, and may reduce the risk of enforcement action against ‘the polluter’.



If you have a spillage or leak, stop the flow at the source. Use your oil spill kit, or an absorbing material such as sand or earth, to surround or cover the oil and prevent it from entering drains or watercourses.

Never use detergents or a hose to wash spilt oil away. Trying to wash it away will only spread the contamination further. Oil will contaminate soil and could pollute groundwater. If a spillage has soaked into the ground it is important to get all contaminated soil removed quickly to prevent long term contamination problems on yours or neighbouring land.

Regular checks and maintenance on your central heating oil tank and oil supply pipes may avoid the problems of a leak. If you cannot do it yourself, employ a competent person. The cost of a service will be considerably less than the cost of dealing with a leak.



Maintenance and precautions

If your tank is not bunded, consider building one. A bund is a collection trough which sits under the oil tank. In the event of the tank leaking, all the oil will be retained within this leak proof trough. The bund should have the capacity to hold at least 10% more than the capacity of the tank (as it can collect rainwater over time). Bunds can be built of brick, concrete or other watertight material. From time to time you may need to empty rainwater out of it, but do not be tempted to fit a drain hole, unless fitted with a tap which can be securely closed. Some designs of tank incorporate a bund. The tank has a second skin which acts as a safety net if the tank leaks.

Things to look out for:

- Check the condition of your tank regularly. If it is a metal tank, ensure it is painted regularly to avoid the metal corroding.
- If possible, supervise any deliveries of oil. Make sure you do not order more oil than you can fit in your tank.
- Monitor and become familiar with your normal usage rate of oil. If consumption appears to go up, check for leaks immediately. There have been instances where people have re-filled a leaking oil tank without checking when their last delivery was, doubling the amount of oil lost into the ground without realising. The more oil lost, the more difficult and expensive the clean up.
- Have a thorough regular maintenance check carried out by a competent person on your whole system, not just the boiler.
- Keep fill points on the tank clear of obstructions and ensure they are tamper proof.
- Be aware of black staining on tank supports or bases, this may indicate a leak.
- Be aware of any oily smells. This may indicate a leak.

If there is a spill or a leak do not:

- Delay taking action.
- Assume the problem will go away.
- Drink any water suspected to be contaminated.



What happens next?

After the initial clean up the possible long term implications need to be considered. Advice maybe available from your local authority, the Environment Agency and your insurance company. It is important to keep all the parties involved up to date. Your local authority can offer general advice. However, they cannot carry out the clean up work for you. You may need to employ a specialist contractor to carry out the work. You may want to speak to your insurer about this as they have approved consultants to carry out the work.

USEFUL CONTACTS

Local authorities:

Breckland Council

Tel: (01362) 656870 www.breckland.gov.uk

Broadland District Council

Tel: (01603) 431133 www.broadland.gov.uk

Great Yarmouth Borough Council

Tel: (01493) 856100 www.great-yarmouth.gov.uk

Borough of King's Lynn and West Norfolk

Tel: (01553) 616200 www.west-norfolk.gov.uk

North Norfolk District Council

Tel: (01263) 516085 www.northnorfolk.gov.uk

Norwich City Council

Tel: 0344 980 3333 www.norwich.org

South Norfolk Council

Tel: 0808 168 2000 www.south-norfolk.gov.uk

CNC Building Control Consultancy

Tel: 0808 1685041 www.cncbuildingcontrol.gov.uk

Anglian Water Ltd

Tel: 0845 714 5145 www.anglianwater.com

Environment Agency

Tel: 03708 506506 www.environment-agency.gov.uk

If you have any queries about domestic oil storage and the Regulations you can also contact the Environment Agency by e-mail: oil.regulations@environment-agency.gov.uk

FURTHER INFORMATION

OFTEC (Oil Firing Technical Association)

Foxwood House, Dobbs Lane, Kesgrave, Ipswich IP5 2QQ. Tel: 0845 6585 080

Fax: 0845 6585 181 or e-mail: enquires@oftec.org.

(OFTEC represent the oil firing industry, principally involving the use of oil for heating and cooking by promoting the market for high quality fuel and equipment through excellence in design, manufacture, installation and servicing.)

DEFRA

For their guidance note for the Control of Pollution (Oil Storage) (England) Regulations 2001 PB5765 or tel: 08459 556000 or go to their website www.defra.gov.uk

British Standards Institute, BSI 389

Chiswick High Road, London W4 4AL for BS 5410 Part 1 1997 - Code of Practice for Oil Firing, installations up to 45kW output capacity for space heating and hot water supply purposes (ISBN 0-580-27671-6).

Stationery Office

Tel: 0870 600 5522, for the building regulation - Approved Document J - combustion appliances and fuel storage systems.