Fact sheet 6: for farmers

Fuel Oil Storage

November 2016

Are you planning to substantially alter your fuel oil store, or add a new one?

If so, this fact sheet will help you meet the requirements of The Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) (England) Regulations 2010 (as amended 2013). These are commonly referred to as SSAFO and apply in England.

We also have a duty to protect groundwater, and ask that you avoid locating your system within a groundwater Source Protection Zone 1 or within 50 metres of a borehole, well, or spring used to supply drinking water.

Compliant gravity fed system

Please note that there is now a requirement to notify us at the proposal stage, before you commence any construction or install the tank.

What is a fuel oil store?

A fuel oil store can be a single tank, multiple tanks, or drums. They can be in one area or spread across your farm. Mobile bowsers or drums temporarily stored alongside mobile plant are exempt from the Regulations but you should still take precautions to prevent and contain spillages. Providing it is stored separately, oil used exclusively for domestic heating or power is covered by other regulations, and advice can be obtained from http://www.oftec.org/consumers/domestic-oil-tanks-and-storage . Oil stored and used for non-agricultural activities in England, may be subject to The Control of Pollution (Oil Storage) (England) Regulations 2001. See the 'Where can I get further help?' section on how to get more information.

What do the Regulations mean for my oil storage?

You have to comply with the SSAFO Regulations where the total quantity of agricultural fuel oil stored on the farm is more than 1,500 litres. You may be exempt if your oil storage was in place before 1991 but please consider bringing your storage up to the regulatory standard.

You must notify us in writing about any new, substantially enlarged or substantially reconstructed system at least 14 days before any construction/installation begins.

The notification must include the type of structure and where it is to be used. We are likely to request details of the proposed design and construction, and once an agreed proposal has been constructed we will ask you to send us a completed notification form before you start using the facility. We can provide you with a form or you can download one from our website.

Requirements that apply to fuel oil stores

The basic requirement is for tanks or drums to be surrounded by an impermeable secondary containment structure or bund. The size of the secondary containment / bund is shown in the table below.

- No part of the system can be within 10 metres of inland freshwaters or coastal waters that fuel oil could enter. This includes yard drains and dry ditches, and land drains.
- The walls and the base of the secondary containment must be impermeable to oil and water and not have a drain down pipe.
- Every part of the oil container must be within the bund. This includes sight gauges, tank drain-down valves and shut-off valves associated with fixed or flexible draw-off delivery pipes.
- Taps and valves through which oil can be discharged must be within the bund. They must be directed down into it and locked shut when not in use.
- Flexible delivery pipes permanently attached to the primary tank must be fitted with a self-closing tap or valve at the end. They must be locked inside the bund when not in use.

Storage type	Capacity of secondary containment / bund
Single tank	**110% capacity of the tank**
Multi-tanks	**110% of the capacity of the largest tank or 25% of total volume that could be stored in all tanks in the area, whichever is the greater.**
Drum(s)	**At least 25% of the total volume that could be stored at any time.**

- The secondary containment / bund, when new, must have a 20-year life expectancy with maintenance.

What are the different tanks available for oil storage?

Not all makes of tank or tank systems meet the requirements of the regulations.

Tanks are sold under a variety of names (single skin, double skin, integrally bunded, tank system, or fuel stations etc) and are available in both plastic and metal. The principles of compliance apply to both materials. Plastic tanks are becoming the most commonly installed products on farms.

Tank manufacturing and quality standards

Tanks should comply with BS EN ISO 9001, and plastic and steel tanks and tank systems manufactured to OFTEC Standards OFS T100 and OFS T200 respectively, meet the British Standard. Steel tanks should meet BS 799-5:2010. Plastic tanks should have been tested and confirmed to meet to European Standard EN13341 2005 +A1 2011.

Your tank manufacturer, supplier or installer should advise you on the minimum design and manufacturing standards under the appropriate accredited quality assurance scheme, but please note that compliance with standards for construction and manufacture doesn't guarantee compliance with SSAFO.

How can the different tank designs comply with the regulations?

Single-skinned tanks

A single-skin tank or primary container always requires secondary containment (a separate bund) to comply. It must be constructed in-situ, enclosing the container and its ancillary equipment.

Where a bund is constructed from brick or concrete block, it should be reinforced, and must be rendered on the inside with waterproof oil resistant material. You can find more information in the 'masonry bunds for oil storage tanks' document. We can provide you with a free copy on request, or you can download it from our website.

Double-skinned tanks

A double-skinned or twin walled tank is a primary container with another “skin” around it with a small gap in between. The second skin often provides some structural support to the inner container, and none of the pipe work or ancillary equipment is contained, so isn't a bund.

Double-skinned tanks therefore don't comply with the SSAFO regulations unless a separate bund is provided around the tank and ancillary equipment.

Underground tanks are not governed by the SSAFO regulations. Where tanks have to be installed underground, we recommended twin walled tanks are used for underground installations. The space between the tank skins can be monitored for leaks of oil or petrol. Underground installations should also have twin-walled, non-corrosive pipe work specified, and need to follow the Defra Groundwater Protection Code.

Self bunded or integrally bunded tanks, and fuel stations etc

They are specifically-designed and manufactured oil storage containers with an integral bund that protects the container and its ancillary equipment. They will come in various designs from several manufacturers.

Manufacturers and suppliers may make claims about the environmental performance of their products but some tank systems may not comply with all the SSAFO regulations. Here are some factors to look out for:

Bottom off take tanks

These tanks have the outlet from the primary tank at the bottom. Where they rely on a gravity feed to an external factory-fitted off-take point fitted with a flexible delivery hose, it does not meet the SSAFO regulations and requires additional containment with a bund.

Where the off-take is to serve fixed plant such as a grain dryer via a solid feed pipe, they do meet the regulations. Most tanks are supplied with a pre-installed coupling for this purpose. It's good practice to specify a tank system that has an accessible shut-off valve inside the bund, which you can use in the event of a leak, plant maintenance, or periods of plant shut-down.

A variation of this is where a flexible delivery hose is fitted but it's kept in a lockable cabinet fitted to the end of the tank. Although they provide some extra protection because the cabinet has a built-in drip tray and the flexible delivery hose can be locked away from vandals, they do not meet the SSAFO regulations.

If the tank delivers fuel using a pumped system and the flexible delivery hose can be kept inside the bund after use, then it does meet the SSAFO regulations. It also has the benefit that the facility can be sited at ground level avoiding risks with high-level supports, and allows easy access for filling and inspection: it does not rely on gravity for the fuel delivery, and everything is contained.

A further alternative has the pump-set external to the tank, connected to the tank by a fixed pipe. The flexible delivery hose doesn't need to sit within the bunded area to be compliant with the SSAFO regulations, but it should have its own protection from spillage and unauthorised use.

Compliant Pumped system

Top off take tanks

These tanks draw the fuel from an outlet at the top of the tank. This means that a pump and non-return valve is required to dispense fuel, making them inherently safer. Tank systems are available as complete fuelling stations with all valves and pipe work within the bund. They comply with the SSAFO regulations.

How do I meet the 20-year life expectancy requirement for bunds?

Bunds designed and constructed from masonry or reinforced concrete, and rendered with waterproof material, should readily meet this requirement with routine maintenance. See the other information section.

Where integrally bunded plastic tanks are concerned the life expectancy of the bund is essentially the same as the tank. Some tanks have a 10-year guarantee, others have only one year which is renewable after inspection. Evaluating these tanks against the 20-year life expectancy is therefore difficult.

You should seek assurance from the manufacturer about the likely maximum life of the product and what maintenance should be undertaken to ensure this. Where the manufacturer can't provide this information you should consider replacing the facility at the end of the guarantee, or at the end of the guarantee period, seek an annual independent verification that it is suitable for continued use.

What happens after I submit proposals to the Environment Agency?

We will assess your proposals and the site. In some cases we will visit the site and meet with you or your agent. We will make our assessment clear to you in writing.

What happens if an oil spill occurs?

Keep a spill kit with commercial sorbent products close to your oil storage to deal with spills, and make sure you or your staff know how to use it safely. Alternatively use sand, or earth.

If you have a spill, take immediate action to stop the oil getting into any drains or watercourses.

- Notify us by calling the incident hotline below;
- If you can, soak up the spilt oil with the contents of your spill kit, without putting yourself in danger;
- Don't hose the spillage down or use any detergents to try to get rid of it as you could make the pollution worse.

If oil soaks into the ground, the soil soaked in oil should be removed by a professional company, so it doesn't cause long term pollution. Store any materials that are soaked in oil in containers that won't let the oil run away until it can be correctly and legally disposed of.

What happens if pollution occurs?

The responsibility for preventing pollution falls to the person with custody or control of the installation. Normally that is you, the farmer. If pollution occurs you may be liable, even if we have agreed to the system installed.

Great care is therefore essential in the construction, operation and maintenance of the system to ensure it continues to perform properly. We recommend all your oil storage tanks have an Oil Care Campaign sticker that tells you what to do if you have an oil leak or spill. Call our customer service line to ask for a free sticker.

Continued...

Where can I find further help?

You can find further information on GOV.UK

For plastic tanks see: OFTEC link

Also see:

Groundwater Protection Code: Petrol Stations & Other Fuel Dispensing Facilities Involving Underground Storage Tanks

To help identify any Source Protection Zones, look in the 'what's in your backyard' section of our website.

If you are still unsure please contact your local Environment Agency office via the customer service line.