



Llywodraeth Cymru
Welsh Government

Keeping your oil storage safe

Guidance on the Water Resources (Control of Pollution) (Oil Storage)
(Wales) Regulations 2016

March 2016

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GUIDANCE ON THE WATER RESOURCES (CONTROL OF POLLUTION) (OIL STORAGE) (WALES) REGULATIONS 2016

1. INTRODUCTION

Purpose of this Guidance

1. This guidance gives background information on the *Water Resources (Control of Pollution) (Oil Storage) (Wales) Regulations 2016* (the Regulations) and outlines recommended 'best practice' measures that go beyond the requirements of the legislation. The guidance uses '**must**' to explain statutory requirements you must follow to comply with the Regulations. Where the guidance says '**should**' this is our best practice recommendation, but is beyond the statutory requirements.
2. This guidance outlines the key requirements of the Regulations for those affected by the changes. It isn't a substitute for the Regulations and is not intended to have legal force. We recommend that you refer to the precise provisions and requirements of the Regulations. You have a legal duty to avoid causing pollution and to comply with the Regulations and other relevant legislation. There may be variations in local conditions that mean more stringent standards are required on some premises storing oil in order to prevent pollution.

Reasons for the Regulations

3. Every year in Wales there are between 130 and 300 recorded water pollution incidents caused by oil. Investigations commissioned by the Oil Care Campaign in 2005 indicated that the number of incidents reported to environmental regulators may only represent a small proportion of the actual number occurring, with as few as 28% of serious incidents being reported.
4. Many of these oil pollution incidents are due to inadequate storage or poor management of oil supplies (e.g. in tanks, drums or bowsers). The Welsh Government is obliged to fulfil the requirements of the EC Water Framework Directive to prevent pollution of the water environment by certain pollutants; this includes oils, as well as ensuring that measures are taken to treat pollution incidents when they happen. The Regulations will contribute to the implementation of the Directive by complementing and enhancing existing water pollution controls in Wales. The Regulations aim to reduce the numbers of oil-related water pollution incidents and to meet the objectives of the Welsh Government's Water Strategy for Wales.
5. In addition to this guidance, detailed information for users at individual sites is available from Natural Resources Wales (NRW).

2. SCOPE OF THE REGULATIONS

Types of oils

6. The Regulations apply to any kind of oil, including petrol, diesel, kerosene, lubricating oil (both mineral and synthetic), waste oil, vegetable and plant oil. They don't include uncut bitumen, as this material will solidify in the vicinity of any spill. The storage of Agricultural Fuel Oil is now controlled by these Regulations and Regulation 11 of these Regulations accordingly removes oil storage from the Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) (Wales) Regulations 2010. You must also ensure that you comply with the relevant provisions of the Environmental Permitting Regulations 2010 relating to the handling and storage of waste oil.

Oil storage facilities

7. The Regulations apply to any kind of container which has a capacity of greater than 200 litres which is being used to store oil above ground, whether inside or outside a building. This includes fixed tanks, intermediate bulk containers (IBCs), drums (oil drums or similar containers used for storing oil) or mobile bowsers.

- Where oil is stored in any portable container with a storage capacity of 200 litres or less, the container **should** be of sufficient strength and structural integrity to ensure that it's unlikely to burst or leak in its ordinary use.
- Where oil is stored in a container with a storage capacity of 200 litres or more, the container **must** be of sufficient strength and structural integrity to ensure that it's unlikely to burst or leak in its ordinary use. There are additional prescriptive requirements that **must** be met.

8. The range of premises covered by the Regulations is wide, including land and mobile plant but not including vehicles or vessels. Examples of the types of premises where oil storage must comply with the Regulations include:

- *Industrial businesses*: small manufacturing premises such as food processing, textiles, paper and publishing, engineering, bricks and ceramics, metals, chemicals.
- *Commercial businesses*: such as shops, offices, theatres, hotels, restaurants, pubs, building and construction sites, motor garages, transport depots, bus stations.
- *Institutions (residential and non-residential)*: in the public and private sector, charities and voluntary groups, these include schools, hospitals, churches, village halls, prisons, libraries, public sector buildings, nursing homes, and occupiers of multi-residential dwellings whether, privately or publicly owned, blocks of flats or other dwellings where oil is supplied from communal storage facilities.
- *Farms*: includes storage of any oil used on a farm for agricultural and commercial use. For oil intended for use exclusively as a fuel for heating or cooking in a farmhouse or other residential premises on a farm and stored separately from other oil, the provisions relating to domestic properties apply.

- *Domestic properties:* The requirements of the Regulations apply to new or replacement tanks serving domestic properties installed after 15 March 2016. Domestic tanks in use on or before that date remain exempt from these requirements until replaced.

Exemptions

9. The following exemptions to the Regulations apply:

- The storage of oil on premises used wholly or mainly as a private dwelling where the oil storage container was in use on or before 15 March 2016. Note that when an existing tank is replaced after 15 March 2016, the replacement tank **must** comply with the requirements of the Regulations.
- The storage of oil in any container situated wholly underground. This means below the level of the adjacent ground, unless the tank is situated within a building, i.e. in a basement.
- Premises where oil is refined.
- Premises used for the onward distribution of oil to other places, i.e. oil distribution depots. This includes sites where operations such as blending and filling are carried out, but does not include fuel installations for transport companies. The Energy Institute publishes guidance and codes of practice relating to the design and operation of oil distribution depots, including the *'Model code of safe practice Part 2: Design, construction and operation of petroleum distribution installations'*¹.

Despite the above exemption, the provisions of the Anti-Pollution Works Regulations 1999 enable NRW to serve a notice on an operator requiring improvement in the facility if they consider the activity on the site is having, or is likely to have, a significant adverse impact on the water environment.

Owners and operators of exempt sites are reminded of their legal duty to avoid causing pollution and to comply with other relevant legislation

¹ www.Publishing.energyinst.org/publication/ei-technical-publications/petroleum-distribution-installations2

3. IMPLEMENTATION

Time-frame for the application of the Regulations

10. The Regulations will come into force in 3 stages following their approval by the Assembly. These are:

- Tanks installed after the Regulations come in to force on 15 March 2016 will have to comply with the Regulations from the date they are installed.
- Existing tanks at significant risk (i.e. facilities that are located within 10 metres of any surface water or wetland, or 50 metres of a borehole or well), will have to comply within 2 years (i.e. by 15 March 2018).
- Existing tanks not at significant risk will have to comply within 4 years (i.e. by 15 March 2020).

Where practicable, oil storage containers should not be located where there is a high risk that leaking oil could enter groundwater, inland or coastal waters. This includes rivers, lakes, reservoirs and smaller watercourses. In cases where this poses difficulties, it's important to seek advice from NRW.

4. REGULATORY STANDARDS

Standards for Oil Storage Containers

11. The Regulations set minimum standards for new and existing above ground oil storage facilities, affecting all sectors, including industrial, commercial, agricultural and institutional sectors, as well as new domestic installations. If you are affected by these Regulations we recommend that you refer to the exact provisions of the Regulations as well as guidance documents about oil storage produced by NRW, the Oil Firing Technical Association (OFTEC) and the Construction Industry Research and Information Association (CIRIA). Where drums are stored within a building, NRW will provide advice on whether the requirements may be met by forming a lip at the doorway of the room in which they are stored, high enough to ensure a sufficient volume of containment.

12 The main provisions introduced by the Regulations apply to containers of more than 200 litres and are outlined below:

- All tanks, drums or other containers over 200 litres **must** be strong enough to hold the oil without leaking or bursting. A standard oil drum has a capacity of 205 litres and must comply with the Regulations.
- If possible, the oil container **must** be either positioned to avoid damage (e.g. impact from any vehicular traffic) or suitably protected by physical means.
- A secondary containment system (e.g. bund or drip tray) **must** be provided to catch any oil leaking from the container or its related pipework and equipment.
- The secondary containment system for a tank, IBC or mobile bowser **must** be sufficient capacity to contain at least 110% of the maximum contents of

the oil container. Where more than one container is stored the bund **must** be capable of storing at least 110% of the largest tank (or of one tank if they are the same size), or at least 25% of the total storage capacity, whichever is the greater.

- The secondary containment system for drums, (which may be a drip tray or bund), **must** be of sufficient capacity to contain at least 25% of total storage capacity.
- Special attention should be paid where containers are hydraulically linked to ensure the containment system meets these requirements.
- The bund base and walls **must** be impermeable to water and oil and checked regularly for leaks.
- Any valve, filter, sight gauge, vent pipe or other ancillary equipment **must** be kept within the bund when not in use.
- Above ground pipework must be properly supported (e.g. using brackets to attach the pipe to a wall).
- Below ground pipework **must** be protected from physical damage (e.g. excessive surface loading, ground movement, disturbance or corrosion) and have adequate leakage detection. If mechanical joints have to be used, they **must** be readily accessible for inspection.
- Below ground pipework **must** be tested at regular intervals. This **must** be at least every 5 years for pipes with mechanical joints and every 10 years for those without.

NRW has the power to serve works notices to minimise pollution risks. Such a notice could require an existing container to comply with all or part of the Regulations during the transitional period or require a new container breaching the Regulations to comply.

13 Some of the main requirements of the Regulations, highlighting the 'best practice' measures, are described in more detail in **Table 1**.

Table 1 Regulatory requirements and ‘best practice’ measures

Aspect	Regulatory Requirement/Other statutory requirements that <u>must</u> be observed	Best Practice that <u>should</u> be observed
Structural integrity and maintenance of primary container	<p>Tanks, drums or other containers of more than 200 litres must be strong enough to hold the oil without leaking or bursting.</p> <p>Containers must meet the desired performance standards specified in regulations 4 - 6 at all times,</p>	<p>Purchase fixed container manufactured to OFS T/100 for plastic tanks and OFS/T200 or BS799 Pt 5 for steel.</p> <p>For drums and IBCs one way to achieve this is to select containers marked with the letters ‘UN’ for United Nations.</p> <p>Regular (at least annual) inspection of containers by a competent person². For detailed information refer to OFTEC Technical Book 3 ‘Requirements for oil storage and supply.</p>
Safety zone and maintenance	<p>Containers must be positioned to avoid damage from impact (e.g. from any vehicular traffic) as far as practicable or protected by physical barriers.</p>	<p>Where practicable, containers storing oil should not be constructed or situated within 50 metres of any borehole or 10 metres of any surface water or wetland. You should seek NRW's advice where there is any such risk to the water environment.</p> <p>Storage of flammable liquids with a flashpoint of 60 degrees C or below is subject to Health and Safety guidance HSG 176 <i>'The Storage of Flammable Liquids in Tanks'</i>.</p> <p>To prevent the risk of water pollution, undertake weekly inspections and regular maintenance of the primary and secondary containment systems, as well as a detailed annual inspection and service. The Oil Care Campaign web site has practical advice on inspections. www.oilcare.org.uk/look-after-your-oil/regular-tank-checks</p>

² Competent Person Scheme (CPS) operators typically offer a local technician search facility online or by phone. CPS operators can be found online at the [Competent Persons Register](http://www.competentperson.co.uk/). - <http://www.competentperson.co.uk/>

Aspect	Regulatory Requirement/Other statutory requirements that <u>must</u> be observed	Best Practice that <u>should</u> be observed
Secondary containment system bunds or drip trays	<p>All containers must be situated within an oil-tight secondary containment system such as a bund.</p> <p>Note: There is considerable confusion in the industry that “double skinned” oil storage tanks meet the requirements of these Regulations. They will only meet the requirements of these regulations if valves, sight glasses or other ancillary equipment (see below) are contained within the “second skin” and this acts as secondary containment with sufficient capacity. Many “double skinned” tanks do not comply with this requirement and would require additional containment to meet these Regulations.</p> <p>The bund must have sufficient capacity to contain at least 110% of the maximum contents of the oil container. Where more than one container is stored, the bund must be capable of storing at least 110% of the largest tank (or of one tank if they are the same size) or at least 25% of the total storage capacity, whichever is the greater.</p> <p>Oil drums must have a drip tray with a capacity of not less than 25% of the drum’s storage capacity or, for several drums situated together, at least 25% of the aggregated storage capacity.</p>	<p>The bund may be conventionally constructed or a proprietary prefabricated tank system designed to equivalent pollution prevention standards. (see OFTEC Standard OFS T100 for plastic tanks systems and OFS T200 for steel tank systems)</p> <p>Reinforced materials should be used for bund wall construction and there should be no damp proof course.</p> <p>Sensitive sites should take into account alternative methods for calculating bund sizes as developed by CIRIA. For detailed information refer to CIRIA report (C736) <i>'Construction of bunds for oil storage tanks'</i>. Petrol and flammable liquids should be stored in accordance with Health and Safety Executive guidance HSG 176 <i>'The Storage of Flammable Liquids in Tanks'</i>. For proprietary prefabricated storage systems, reference should also be made to the CIRIA study: <i>'Review of Proprietary Prefabricated Bunded Oil Storage Tank Systems'</i>.</p> <p>Bunds, tanks and pipework should be checked regularly for leaks or signs of damage. For further practical advice, see: http://oilcare.org.uk/look-after-your-oil/regular-tank-checks/</p> <p>A competent person should conduct a more detailed annual check-up.</p>

Aspect	Regulatory Requirement/Other statutory requirements that must be observed	Best Practice that should be observed
Secondary containment system integrity	<p>The use of a valve, pipe or other opening to drain rainwater that has accumulated in the containment system by gravity is prohibited. No valve, pipe or opening intended for this purpose may penetrate the bund base or walls.</p> <p>There must not be any direct outlet connecting the bund to any drain, sewer or watercourse. You must not allow any discharges onto a yard or to soak into the ground.</p> <p>The bund base and wall must be impermeable to water and oil.</p> <p>Oil, or a mixture of oil and water that has collected in a bund, must be handled and disposed of in accordance with the <i>Environmental Protection (Duty of Care) Regulations 1991</i> and <i>Waste Management Licensing Regulations 1994</i>.</p>	<p>The bund wall, for an open bund, should have a minimum height of 250mm to allow for rainfall and fire-fighting foam. We recommend you ensure the bund has a collection sump for rainwater. Water collecting in the base of the bund may be removed using either a manually operated pump or a fail-safe automatic pump.</p> <p>Enclosed proprietary prefabricated storage systems or a roof over the storage area (where this does not constitute an additional fire risk to the contained fuel) should be used to exclude rainwater from the bund.</p>
Secondary containment system integrity	<p>If a pipe used to fill a container or to draw oil from it penetrates the bund wall or base, it must be sealed into the bund with a material that is resistant to damage by the stored oil, to ensure the bund remains leak proof.</p>	<p>Constructed bunds, for example made from masonry or concrete, are likely to need rendering or a specialist (alternative proprietary) coating on the internal surfaces of the base and walls to make them impermeable.</p>
Containers/ drums/ fixed tanks	<p>A primary container is defined as a:</p> <ul style="list-style-type: none"> • drum • fixed tank • mobile bowser 	<p>We recommend that storage tanks and tanks systems should be type tested to a recognised standard and produced to that standard under a quality assurance system complying with ISO 9001.</p>

Aspect	Regulatory Requirement/Other statutory requirements that <u>must</u> be observed	Best Practice that <u>should</u> be observed
	<ul style="list-style-type: none"> intermediate bulk container (IBC) 	<p>They should be installed by a competent person³.</p> <p>Tanks made of materials that are liable to corrosion should be adequately protected against corrosion. Primary steel tanks should comply with BS 799: Part 5 or the OFTEC standard OFS T200 which also includes prefabricated integrally banded steel tank systems.</p> <p>If your tank isn't integrally banded, we recommend a minimum distance of 750mm between the tank and the bund wall and 600mm between the tank and the base of the bund so that tanks can be inspected externally for corrosion or leaks.</p> <p>Tanks should be marked with the product type and tank capacity. An instruction note giving details of safe delivery procedures and emergency procedures should be sited at the delivery point. A suitable self-adhesive notice is available through the Oil Care Campaign at www.oilcare.org.uk</p> <p>We recommend that you have a suitable way to measure the quantity of oil in your tank and an overfill alarm. For details see OFTEC standard OFS E105. Oil storage tank systems manufactured to OFS T100 and OFS T200 should include overfill prevention devices to EN 13616.</p>

³ Competent Person Scheme (CPS) operators typically offer a local technician search facility online or by phone. CPS operators can be found online at the [Competent Persons Register](http://www.competentperson.co.uk/). - <http://www.competentperson.co.uk/>

Aspect	Regulatory Requirement/Other statutory requirements that <u>must</u> be observed	Best Practice that <u>should</u> be observed
Requirements for above-ground pipework and other ancillary equipment	<p>Any valve, sight gauge, vent pipe or other ancillary equipment (other than a pipe used to fill the container or to draw oil from it or a pump) must be situated within the secondary containment system and arranged so that discharges of oil are contained within the system.</p> <p>All above ground pipework must be properly supported and positioned to avoid damage from impact (e.g. from any vehicular traffic) or suitably protected by a physical barrier.</p> <p>Any small bore suction pipe must be fitted with an anti-siphon valve.</p>	<p>Pipes used to fill the container (Fill Pipes) should be located within the bund and should be fitted with a shut-off valve. Where the fill pipe does not drain to the tank, a non-return valve should also be fitted at the fill point. Fill pipes should have a 50 mm diameter BSP (parallel) threaded connection, a lockable fill cap with a chain. The pipe should be clearly marked with the product type, tank capacity and a tank reference number. (NB A tank reference numbering system should be adopted on sites with multiple tank installations).</p> <p>We recommend that you have separate fill pipes for each tank (except when tanks are connected with a balance pipe with a greater flow capacity than the fill pipe, where all tanks contain the same fuel type and grade and where means are in place to prevent accidental overfill). Where possible, remote fill points should be avoided, but where unavoidable they should conform to BS799: Part 5 or OFS T100 or T200 as appropriate.</p> <p>Pipes used for supplying oil to fixed appliances should comply with the requirements of BS 5410: Part 1 or 2, as applicable. An oil filter which is designed to protect an appliance is regarded as ancillary to that appliance and does not need to be within the bund.</p> <p>Use suitable frost resistant valves (in the case of draw off valves they should be able to be operated by a person wearing fire gauntlets) and insulation for pipes to prevent damage in freezing conditions.</p>

Aspect	Regulatory Requirement/Other statutory requirements that must be observed	Best Practice that should be observed
Contents measurement and remote fill points	<p>Sight gauges, if used, must be within the bund, properly supported and fitted with a valve that will close automatically when not in use.</p> <p>Where the fill point is remote (or 'offset') from the container, an automatic overfill prevention device must be fitted if the tank and any vent pipe can't be seen by the person controlling the delivery of oil.</p>	<p>An adequate means of measuring the quantity of oil should be provided. We strongly recommend you use electronic gauges and high level alarms. Refer to OFTEC product standards OFS E103, OFS E104 and OFS E105.</p>
Vent pipes and pumps	<p>Any vent pipe, tap or valve through which oil can be discharged from the tank to the open must be arranged to contain any discharge within the secondary containment system. Tap or valves must also be fitted with a lock and locked shut when not in use.</p> <p>Pumps must be fitted with a valve in the feed line to prevent drain down if a pipe or pump is damaged. It must be protected from unauthorised use as well as positioned to minimise the risk of damage from impact.</p>	<p>Air vent pipes should, where possible, be positioned so they can easily be seen during delivery and should not be smaller than the inlet pipe.</p> <p>Flexible pipes and fittings for filling vehicles and other similar tanks should comply with BS EN 1360:1997.</p>
Requirements for below-ground pipework	<p>Underground pipework must be protected from physical damage and, corrosion and have adequate leakage detection facilities. If a leakage detection device is installed to continuously monitor for leaks, it must be maintained in working order and tested at appropriate intervals.</p> <p>Where a leakage detection device isn't fitted, underground pipework must be tested for leaks</p>	<p>Underground pipework should be avoided, but if used, the route should be clearly marked. You should refer to OFTEC Technical Book 3 for further guidance on installation and testing practices.</p> <p>Leakage detection facilities should meet EC leak detection standard EN13160-1 to 7.</p> <p>Note that leakage from underground fill pipes is a risk which can have serious consequences, particularly if the</p>

Aspect	Regulatory Requirement/Other statutory requirements that <u>must</u> be observed	Best Practice that <u>should</u> be observed
Requirements for below-ground pipework - continued	<p>before it's first used and then every 5 years (for pipes which have mechanical joints) and every 10 years in all other cases. If mechanical joints have had to be used, they must be readily accessible for inspection.</p> <p>For any underground pipe which is in use on the date on which these Regulations come into force in relation to the tank to which that pipe relates (either 15 March 2018 or 2020) which has not been tested for leaks in the previous 5 years, must be tested within 1 year of that date.</p> <p>If it has mechanical joints, it must then be tested at least once every 5 years or, in any other case, at least once every 10 years.</p> <p>Where such a pipe has been tested for leaks in the previous 5 years, it must be tested, if it has mechanical joints, at least once every 5 years after the date of the last test or, in any other case, at least once every 10 years after the date of the last test.</p>	<p>pipe passes beneath a property.</p> <p>We recommend you keep records of when your underground pipes are tested.</p>

Aspect	Regulatory Requirement/Other statutory requirements that <u>must</u> be observed	Best Practice that <u>should</u> be observed
Requirement for mobile bowzers	<p>The requirements exclude road tankers used to transport oil.</p> <p>Any tap or valve permanently fixed to the mobile bowser through which oil can be discharged to the open or where oil is delivered through a flexible pipe which is fitted permanently to the mobile bowser, must be fitted with a lock and locked shut when not in use.</p> <p>Sight gauges, if used must be properly supported and fitted with a valve that will close automatically when not in use.</p> <p>Mobile bowzers must be bunded or have a suitably sized drip tray fitted underneath to contain at least 110% of the capacity of the tank when in use/out on site. The bowser must be suitably protected from physical damage.</p>	<p>When dial gauges are fitted, these should be in a prominent position and regularly checked for accuracy.</p> <p>You should refer to OFTEC's OFS E103 'Gauges for use with domestic oil supply tanks'. If a dipstick is used, it should be suitably calibrated for the bowser.</p>
Notice by NRW where it considers the oil storage tank poses a significant risk of environmental pollution	<p>A "Works Notice" may be issued by NRW under the Anti-Pollution Works Regulations 1999 requiring a person or operator responsible for the oil stored in the existing facility to carry out works, or take precautions, or any other action that NRW considers necessary to minimise pollution risks.</p> <p>There is provision for appeal against such notices.</p>	

Aspect	Regulatory Requirement/Other statutory requirements that must be observed	Best Practice that should be observed
Waste oil storage	<p>All relevant requirements of the proposed Regulations will be applicable to waste oil storage. In addition, the provisions of the <i>Waste Management Licensing Regulations 1994</i> and <i>Environmental Protection (Duty of Care) Regulations 1991</i> will also be applicable for removal or disposal of waste oil. Waste oil must not be mixed with other substances such as solvents or paints.</p>	<p>You should take waste oil, from your home, to an oil-recycling bank. The nearest can be found by dialling 03708 506 506 or by consulting the Oil Care Campaign web site, www.oilcare.org.uk.</p> <p>Advice on waste oil storage and collection for businesses is available at: www.oilcare.org.uk/look-after-your-oil/waste-oil</p>
Security	<p>Any permanent taps or valves through which oil can be discharged from the tank to open areas must be fitted with a lock and must be locked shut when not in use.</p> <p>Pumps must be protected from unauthorised use.</p>	<p>Oil storage areas and facilities should be resistant as far as possible to unauthorised interference and vandalism.</p> <p>Taps or valves should be made of steel or other such durable metallic material and marked to show whether they are open or closed. They should be fitted with a blanking cap or plug.</p>
Dealing with spills	<p>Try to prevent the spillage spreading and don't hose it down a drain, as this is likely to cause pollution and may result in legal action.</p>	<p>We recommend you keep a supply of suitable oil sorbent materials (e.g. proprietary products or dry sand) close to your oil storage and delivery area to soak up accidental spills. Drain seals can be kept available to cover gullies in the event of spill.</p> <p>See http://oilcare.org.uk/dealing-with-spills/ for details.</p> <p>Don't use detergents to clean-up oil spills. You should consider the risk of spills and prepare a contingency plan (see PPG21: <i>Pollution Incident Response Planning</i>) and PPG22: <i>Dealing with spills</i>.</p> <p>If you have a spill, immediately notify NRW's emergency hotline: 0800-807060. Take action to contain the oil and to prevent it entering any drains, watercourses or soaking in to the ground.</p>

5. DRAWINGS OF TYPICAL OIL STORAGE TANKS

14 Typical arrangements for fixed oil storage tanks as per 'best practice guidance' are shown in **Figures 5.1 and 5.2** (Diagrams courtesy of OFTEC):

Figure 5.1 - Built Bunded Oil Tank

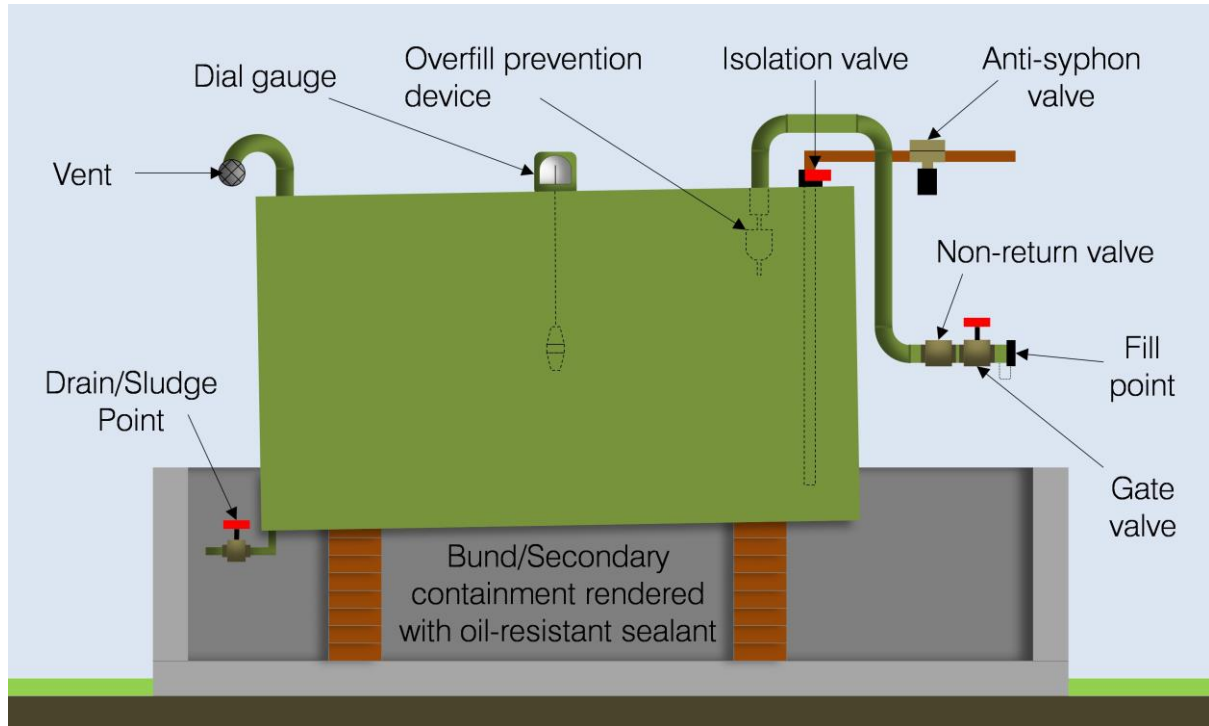
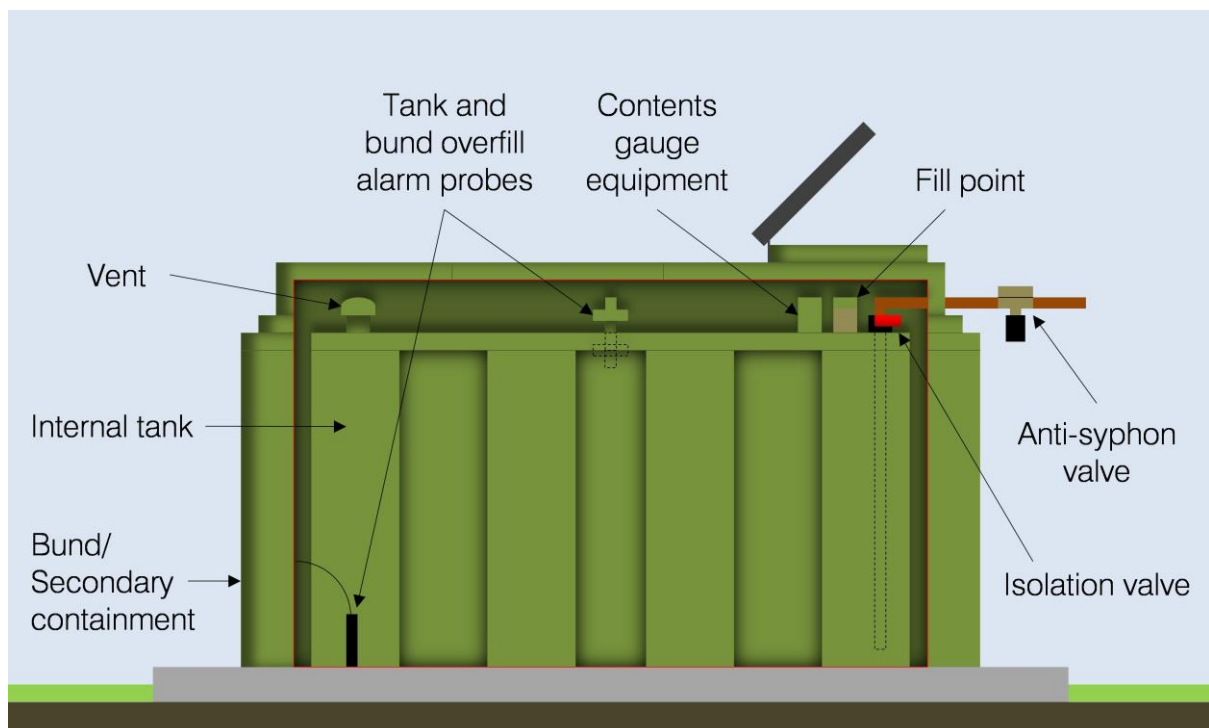


Figure 5.2 - Integrally Bunded Tank System



6. Best Practice Guidance

15 A range of ‘best practice’ guidance about above ground oil storage installations is available and is outlined below, but does not have statutory force. Contact addresses for the organisations are given at the end of this guidance.

‘Pollution Prevention Guidelines: PPG 2 — Above Ground Oil Storage Tanks’

16. This is a joint NRW, Scottish Environment Protection Agency, and Northern Ireland Environment Agency publication. It identifies the minimum standards required to comply with the Regulations and in addition describes best practice. Whilst people are only legally required to adopt the minimum standards of the proposed Regulations, we recommend that best practices are adopted where possible.

17 NRW will offer advice and guidance in complying with the Regulations, ‘best practice’ guidance or otherwise preventing pollution. The Pollution Prevention Guidelines (PPGs) below are available on the NETREGS website – http://www.netregs.org.uk/library_of_topics/pollution_prevention_guides.aspx or alternatively can be requested from local offices.

- General Guide to the Prevention of Water Pollution: PPG 1
- Use and Design of Oil Separators in Surface Water Drainage Systems: PPG 3
- Safe Storage and Disposal of Used Oils: PPG 8
- Pollution Incident Response Planning: PPG 21
- Dealing with spills: PPG 22
- Drum and Intermediate Bulk Container Storage: PPG 26
- Installation Decommissioning and Removal of Underground Storage Tanks: PPG 27

18 Other Pollution Prevention Guidance documents of relevance include:

- Masonry bunds for oil storage tanks: Environment Agencies Joint Guidance /CIRIA
- Concrete bunds for oil storage tanks: Environment Agencies Joint Guidance /CIRIA

Additional relevant publications

19 British Standards Institution (BSI)

- BS799 Part 5 sets standards for steel tanks.
- BS5410 Part 1:2014 is a Code of Practice for Oil Firing Installations up to 45kW output capacity for space heating and hot water purposes.
- BS5410 Part 2 (2013) covers oil-firing installations of 44kW and above and Part 3 (2016) covers installations for furnaces, kilns, ovens and other industrial purposes.

20 The **Oil Firing Technical Association (OFTEC)**

- OFS T100 sets standards for polyethylene oil tanks and storage systems.
- OFS T200 sets standards for steel oil tanks and storage systems.
- OFTEC Technical Book 3 contains information and guidance on the installation of oil storage and supply systems.
- OFS E103 '*Gauges for use with domestic oil supply tanks*' provides information on standards for sight gauges.
- OFS E104 '*Filters and water separation for use with oil supply systems*' provides information on standards for ancillary filtration equipment.
- OFS E105 '*Overfill alarms and overfill prevention devices for use with domestic oil supply tanks*' provides information on standards for Overfill Alarms and Overfill Protection Devices.

21 **The Energy Institute** — produces guidance and codes of practice relating to distribution installations such as the '*Model code of safe practice Part 2: Design, construction and operation of petroleum distribution installations*'.

22 Technical advice on constructing installations is also available from companies supplying equipment. We recommend that appropriately qualified competent persons are used to install tanks and to carry out regular inspections.

23 **Federation of Petroleum Suppliers Ltd (FPS)** —.The Petroleum Driver Passport (PDP) is an industry initiative backed by government to ensure all tanker drivers in the UK are trained and assessed to a consistent, high standard. It has been created by the Downstream Oil Industry Distribution Forum (DODF) — a partnership of employers, industry bodies and trade unions. The DODF has appointed the [Scottish Qualifications Authority \(SQA\)](http://www.sqa.gov.uk) to manage the PDP. For further information see <http://www.fpsonline.co.uk/eng/pdp-training>.

24 The **Construction Industry Research and Information Association (CIRIA)** has published '*Above-ground proprietary prefabricated oil storage tank systems*' (*Report C535*), which has recommendations and best practice guidelines for use by manufacturers and the oil industry on these type of oil storage systems. The review also looks at causes of pollution from oil storage tanks and best practice prevention measures. '*Containment systems for the prevention of pollution*' (*Report C736D*) contains Information on the design, and construction of new secondary containment systems and the also the inspection, maintenance, repair, extension and upgrading of existing installations.

7. Oil Spill Emergency Response

25 You should prepare a contingency plan which considers all risks of oil spills on your premises. PPG 21 can help you do this. You should have a spill kit⁴ or a stock of materials, such as sand or commercially available sorbents, gully seals and booms on site to deal with spills.

26 Many spills occur during a delivery. It's therefore essential that you check there is sufficient capacity in the tank before you accept a delivery. The secondary containment system will contain any spill due to overfilling, and, where there are multiple tanks, the delivery is made to the correct tank. We recommend that you supervise all deliveries and have spill kits close to hand just in case there is a spill.

27 If you have a spill, take immediate action to contain the oil and to prevent it from entering any drains, watercourses or the ground. **Don't use detergents to try and clean-up a spill and don't hose it down drains.** Contact NRW immediately to seek advice. NRW staff may be able to provide practical information and assistance, which could prevent the spill becoming a pollution incident. This could help both reduce the impact of the spill and the cost of clean-up, which you will have to pay.

NRW Emergency Hotline Number: 0800 807060

⁴ 'Spill kits' containing materials to contain and control oil and chemical spills are available from a number of manufacturers.

8. Useful Contacts

Natural Resources Wales

For help interpreting these guidelines and the Regulations, contact NRW:

Telephone: Customer Care Centre 0300 065 3000 (Mon-Fri, 8am-6pm)

By post:

Natural Resources Wales
c/o Customer Care Centre
Ty Cambria
29 Newport Road
Cardiff
CF24 0TP

Email: enquiries@naturalresourceswales.gov.uk

Incident Hotline 0800 80 70 60 (24 hour service)

You should use the Incident Hotline to report incidents such as pollution. You can see a full list of the incidents NRW deal with on their [report it](#) page web page.

Web site: <http://naturalresources.wales>

You may also wish to contact the following organisations:

UK Spill Association

5 Ludshott Manor
Woolmer Lane
Bramshott
Liphook
GU30 7RD
UK

Tel: 0845 625 9890

Mobile: 07793 649643

Email: info@ukspill.org

Web site www.ukspill.org

Oil Firing Technical Association (OFTEC)

Foxwood House
Dobbs Lane
Kesgrave
Ipswich
Suffolk
IP5 2QQ

Tel: 01473 626298

Fax: 01473 636536

Website: www.oftec.org

Construction Industry Research and Information Association (CIRIA)

CIRIA
Griffin Court
15 Long Lane
London
EC1A 9PN
UK

Tel: +44 (0) 20 7549 3300
Fax: +44 (0) 20 7549 3349
Email: enquiries@ciria.org
Web site: www.ciria.org

Oil Care Campaign

www.oilcare.org.uk

The Energy Institute

61 New Cavendish Street
London
W1G 7AR

Tel: 020 7467 7100
Fax: 020 7255 1472
Website: www.energyinst.org.uk

British Standards Institution

British Standards House
389 Chiswick High Street
London
W4 4AL

Tel: 020 8996 9000
Fax: 020 8996 7001
Website: www.bsi-global.com

Federation of Petroleum Suppliers Ltd

Vienna House
International Square
Birmingham Business Park
Bickenhill Lane
Solihull
BN37 7GN

Website: www.fpsonline.co.uk