Northern Ireland Environment Agency
Gníomhaireacht Comhshaoil Thuaisceart Éireann
Norlin Airlan Environment Agency
www.daera-ni.gov.uk

Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

Guidance for Pollution Prevention

Containing major spillages and firewater at industrial sites – GPP18

Version 1.0 November 2024

This guidance has been produced by the Northern Ireland Environment Agency (NIEA) and the Scottish Environment Protection Agency (SEPA).

For **Northern Ireland**, and **Scotland**, this document provides guidance on environmental legislation. These guidelines are not endorsed by the Environment Agency as regulatory guidance in England, or Natural Resources Wales as regulatory guidance in Wales.

To find the relevant regulations visit www.legislation.gov.uk.

Guidance for Pollution Prevention (GPP) documents are based on relevant legislation and reflect current good practice. Following this guidance will help you manage the environmental responsibilities to prevent pollution and comply with the law.

If you cause pollution or allow it to occur, you will be committing a criminal offence. Following these guidelines will help you reduce the likelihood of a pollution incident. If one does occur contact the environmental regulator immediately on the relevant incident hotline number: In **Northern Ireland** and **Scotland** call **0800 80 70 60**.

NetRegs

GPP18

Contents

Section 1. Introduction

This guidance document gives good practice guidance for the prevention of pollution, in the event of fire-fighting water or major spillages creating a threat to the environment.

It aims to help you consider what is appropriate for your site. It applies to sites of all sizes.

As a site operator you need to consider the risks associated with your site. This includes the materials stored, the quantities, and the vulnerability of the local environment including rivers/groundwater.

It is important to minimise the risk of pollution to protect the environment and human health. If you cause pollution, you may be liable to enforcement action by your local Environmental Regulator.

1.1 Who is your Environmental Regulator?

- In **Northern Ireland**, it is the Northern Ireland Environment Agency (NIEA).
- In **Scotland**, it is the Scottish Environment Protection Agency (SEPA).

Contact details are found at the end of this document.

1.2 Pollution prevention

Many industrial and commercial sites have the potential to cause pollution. Affecting our drinking water supplies, people's health, business activities, wildlife and habitats, and our enjoyment and use of the environment. You might not see it, but you can pollute it.

Pollution occurs when substances released to water, land or to air have a harmful effect on our environment.

Pollution can happen accidentally or deliberately and can come from a single place (point source) or from lots of different, possibly unknown and unconnected sources (diffuse sources).

Common causes of pollution include:

- delivery and use of materials
- overfilling containment vessels
- plant or equipment failure
- containment failure

- human error
- lack of staff training
- fires, explosions or failure to contain fire-fighting water
- wrong connections of sewers and pipes
- incompatible materials coming in contact
- uncontrolled reactions
- discharge of partially treated or raw effluent
- vandalism
- flooding of part or all of your site.
- environmental crime

You should understand your site and how your activities could affect the environment and cause pollution. Think about what pollution linkages you have (see Figure 1). The pollution linkages include a source i.e. where the pollution can come from. The next step is to think about how the pollution can travel through the environment, the pathway. Finally, the receptor i.e. who or what can be affected by the pollution.

Figure 1: Example of a pollution linkage using the source > pathway > receptor model.

NOTE: Groundwater can be both a pathway and a receptor.

Your site and activities will only cause harm to the environment or people if you have all of these present: a source, a pathway and a receptor. You should put in place measures to break the

links or weaken the links. By doing this, you can identify how to prevent or reduce the likelihood of pollution and reduce the impact of any problems which may occur.

It is important that you fully understand the local drainage network as pollution is often caused by mistaking a surface water drain for a foul/combined sewer (see Figure 2.)

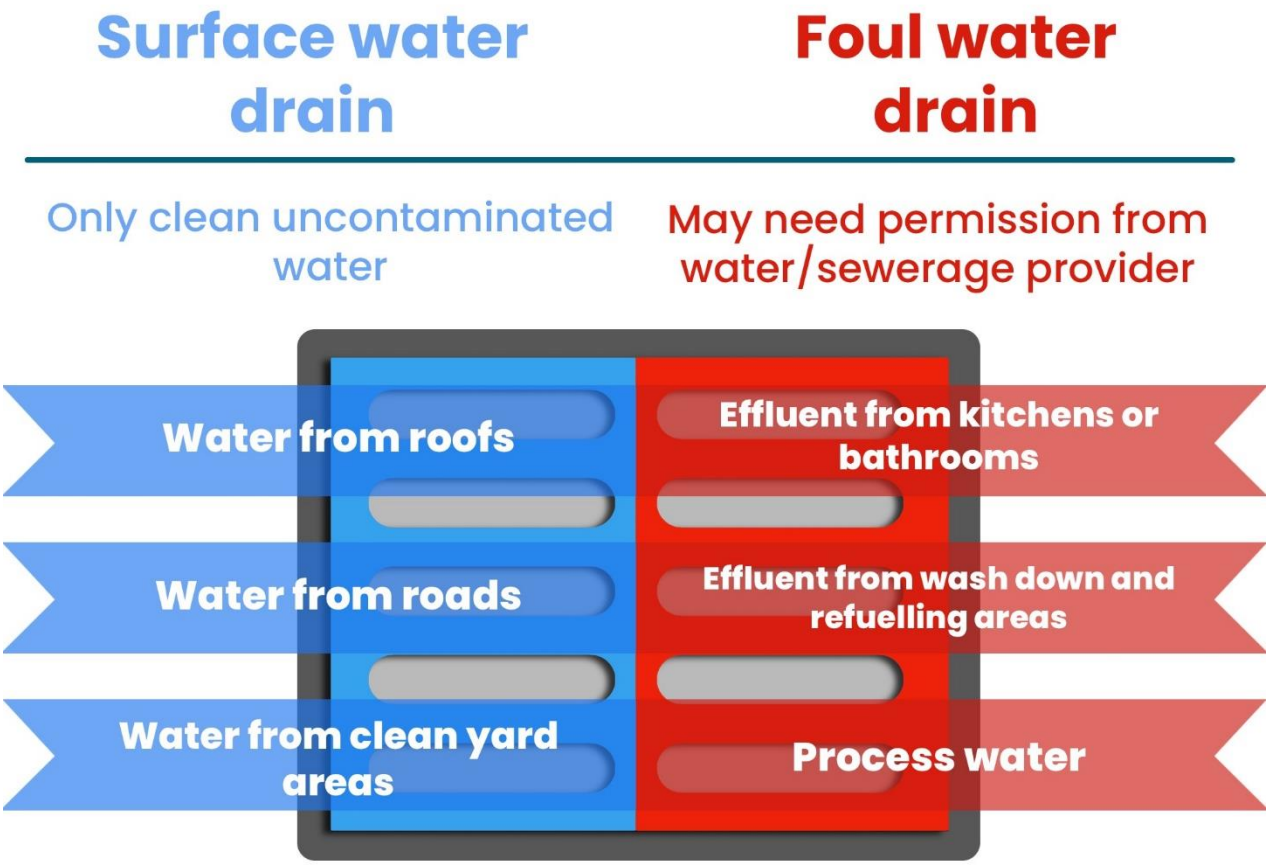

Figure 2. Surface and foul water drains.

The clean-up cost of pollution can be expensive and time consuming particularly if groundwater becomes contaminated. The costs of the clean-up must be borne by the person/business causing the pollution. There may also be additional costs including fines, and reputational cost i.e. loss of future work.

This guidance has been developed to help you plan to reduce the likelihood of an incident. However, if one does occur you must report it to your environmental regulator immediately via the Incident Hotline number **0800 80 70 60** - see section 9. A rapid response to incidents will help to minimise the environmental impact and could reduce the overall costs – For more information refer to section 9.

Section 2. Planning, and management controls

Most industrial and commercial sites have the potential to cause significant environmental harm. They can also threaten water supplies and public health.

You can prevent major pollution incidents if appropriate pollution prevention measures are in place or immediately available.

Contingency planning is the key to success. This requires:

- Preventative measures such as containment systems
- Incident response strategies

A Pollution Incident Response Plan (PIRP) is a key document to help prevent environmental harm.

You can find information on producing a PIRP in **Reference 1:** GPP 21 Pollution Incident Response Plans.

Your PIRP will need to consider:

- **The materials stored on site** that could cause spillages that pose a risk to the environment. This will include chemicals or oil, and also materials that are thought of as non-hazardous, such as milk or beer which can also cause serious environmental harm.
- **Your containment systems**, including legal requirements such as the regulations for oil storage, how primary containment might fail, the risks posed by accidents, fire, flooding and vandalism.
- **The layout of the site**, including drainage systems and physical structures. Leaks, spills, and contaminated run-off can enter rivers, sewers, culverts, drains, water distribution systems and other services. These are all routes for pollutants to be carried off-site.
- **The environmental sensitivity of the location, and the need for containment of on-site materials as well as firewater.**

You must identify all the pathways by which pollutants could escape from your site.

This includes:

- Your site's surface water drainage system, either directly or via off-site surface water sewers.
- Direct run-off into nearby watercourses, or onto areas of permeable ground around your site, with potential risk to groundwaters.
- Via the sewer system, with pollutants either passing unaltered through a sewage treatment works or affecting the performance of the works. This could result in pollution being discharged causing further environmental damage.
- Through atmospheric deposition, such as vapour plumes.

See Reference 2: BSI: Fire extinguishing installations and equipment on premises

See Reference 3: Combustion Engineering Association

See Reference 4: Energy Institute - Model Code of Safe Practice Part 19: Fire precautions at petroleum refineries and bulk storage installations

If an incident happens you must **contact your environmental regulator immediately**. Contact details are listed at the end of this document.

Section 3. Containment systems

3.1 Primary containment

Make sure your primary containers have sufficient strength and structural integrity, so they don't leak or burst under normal use. For example, rusty or dented containers are unlikely to be fit for use.

If your containers have a packaging certificate and are marked as complying with the United Nations (UN) inspection, they would normally be considered structurally sound. However, they should still be examined before use in case they have been damaged since their last inspection.

Repair or remove any damaged or unsuitable containers as soon as they are identified. Unless legal requirements say otherwise, you should store primary containers inside a building, under cover or protected from the elements by another method. Steel drums stored outside in a vertical position are at risk of rusting from rainwater, while plastic containers can deteriorate over time and become brittle.

Don't store drums directly on top of one another because this greatly increases the risk of drums splitting under pressure or falling over.

If you're reusing containers, it's your responsibility to make sure what it's made from is suitable for the product you're planning to put into it, and that it has a life expectancy suitable for your needs. You should also make sure that any residues from the previous contents are unlikely to contaminate or react with the new contents. Remember to re-label used containers with current content.

See Reference 5 GPP26: Safe storage of drums and intermediate bulk containers.

3.2 Secondary containment - preventing spills and leaks

It's good practice to store all drums or IBCs on, or in, an impermeable secondary containment system. Secondary containment systems are designed to catch leaks or spills from the primary container while it is in use.

It is a legal requirement for all containers over 200 litres capacity that hold oil or its products, including waste oil, to be stored inside an impermeable bund.

See **Reference 6**: GPP 2: Above ground oil storage.

Storing your drums and IBCs in a suitable secondary containment system will significantly reduce the risk of causing pollution. It will also allow you to recover or treat any spilled material and will help to stop spilled product escaping. The secondary containment must not have any drainage.

See **Reference 5** GPP 26: Safe storage: Drums and intermediate bulk containers.

Secondary containment is used on plant as a second line of defence for preventing, controlling or mitigating major hazards events. It can take a number of forms, the most common are:

3.2.1 Bunds

Bunds are generally used around storage tanks or drum storage areas where flammable or toxic liquids are held, see figure 3. Liquids such as beer or milk are not toxic to humans but can cause serious environmental damage if released into the water environment.

It is normal to limit the number of tanks in a single bund to 60,000m^3 total capacity. However, incompatible materials should have separate bunds. Tanks usually have individual bunds.

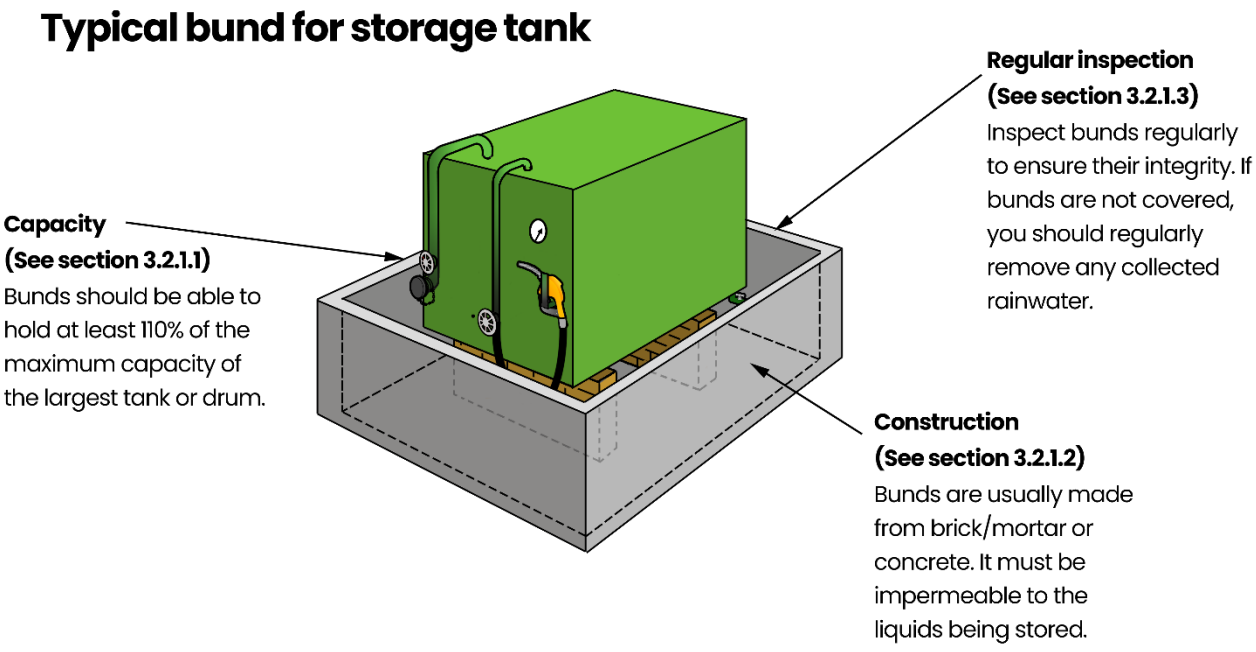

Figure 3. Typical bund around oil storage tank

3.2.1.1 Capacity

Bunds should be sized to hold 110% of the maximum capacity of the largest tank or drum. This will allow space for the addition of foam during the response to an emergency.

Low wall heights (1-1.5 m) are often used to make it easier to spray foam in the event of a fire but are poor defence against spigot flow (where a leak in the wall of a tank passes over the bund wall) or the tidal wave effect of a catastrophic tank failure. For high walled bunds, you will need to consider the possibility of tanks floating as the bund fills, causing catastrophic failure.

3.2.1.2 Construction

Bunds are usually made from brick/mortar or concrete. The bund must be impermeable to the liquids being stored.

Where liquids are being stored above their boiling point, additional insulation, e.g. vermiculite mortar, can be added as cladding to reduce the evaporation rate. These materials provide good chemical resistance to most liquids.

3.2.1.3 Regular inspections

Inspect the bunds on your site regularly to ensure their integrity. If bunds are not covered, then it is important to have the regular removal of any rainwater that collects.

If the removal of water from a bund is necessary, you should have a regular inspection and have a means of removing the rainwater. If this is done regularly then any minor leaks from a tank or drum can be spotted.

If this is done using a drain with a manual valve you must make sure that the valve is closed after each visit. The inspection of the valve will allow any blockage (including ice in winter) to be spotted. This could prevent the removal of rainwater, and the accumulated water would reduce the capacity of the bund.

Bunds around oil storage tanks must not have any drains, and rainwater must be removed by other means. Storage under cover is the best protection.

All these factors should be included in a Safety Report.

3.2.2 Drip trays

Drip Trays can be used beneath equipment where there is a risk of small leaks. For example, beneath pumps or equipment that is refuelled regularly. Small leaks of flammable liquids could lead to major incidents if not contained. See figure 4.

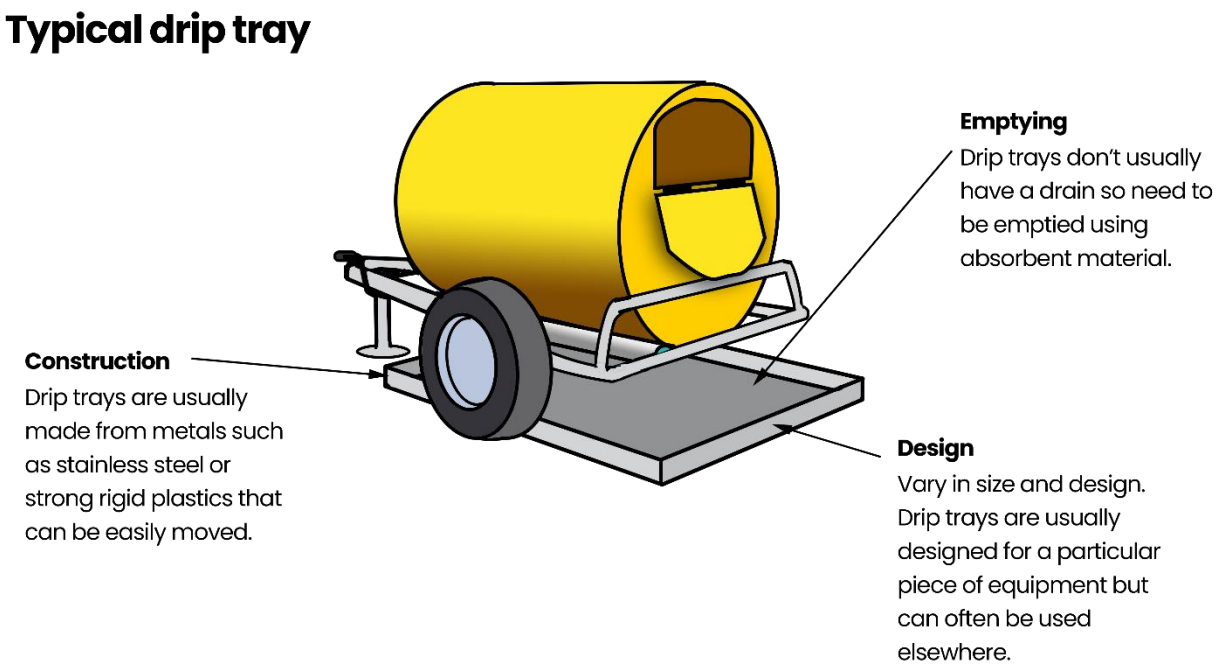

Figure 4. Typical drip tray used with a mobile bowser

Drip trays vary greatly in size and design. Drip trays are often designed for a particular piece of equipment but can often be used elsewhere. They are usually made of metals such as stainless steel or strong rigid plastics that can be easily moved. They don't usually have any drain so need to be emptied using absorbent material.

Sumps beneath drums on drum stillages are designed to catch 100% of the liquid contained in the drum. This prevents any spills in the event of a major failure.

See **Reference 7** HSE: Secondary containment general principles.

And **Reference 8** CIRIA: Containment systems for pollution prevention.

Section 4. Remote Containment systems

4.1 Lagoons

You could consider using earth banked containment basins (lagoons) as a cost-effective secondary containment system. This would only be possible if the topography of the site and the soil conditions allow it.

Lagoons can be constructed above or below the surrounding ground level. The choice may depend on costs, or on the layout of the site.

The lagoon must be constructed to be impermeable in order to protect groundwater. You might have to use an impermeable membrane, or liner to make sure it doesn't leak if an incident occurs. The lagoon could also be lined with a minimum of 1 metre of engineered clay (with a maximum permeability of 1x10-9 m/sec).

A constructed lagoon should be built in such a way that you can isolate it completely from the main drainage system in the case of an emergency.

You could also use flood defence installations, such as a balancing lagoon or shared off site flood storage areas to contain fire-fighting runoff. You would have to make sure that they are built with shut-off devices.

If the use of lagoons requires fire-fighting water to be pumped, you should have an adequate back-up power supply.

4.2 Shut off valves and penstocks

Spillages, or fire-fighting water can be intercepted and prevented from escaping from your site by the use of shut off valves or penstocks. They also enable you to isolate parts of the whole facility. The capacity of the drainage system is important when considering their use. It is possible to install shut off valves that operate automatically by means of sensors or when a fire alarm goes off. These are useful if an incident on your site might not be spotted immediately.

You should make sure these valves are easily accessible and maintained and tested regularly.

The shut off valves should be installed to allow all discharges to be contained and diverted from sewers or the wider environment. Make sure that you have considered all possible routes for

spillages or firewater to leave your site, such as from overflowing gullies or other points where liquids could enter the drainage system.

4.3 Oil separators

You can install oil separators, or oil interceptors, to contain hydrocarbons or other liquids that float on the surface of water. These will not work if degreasing agents or detergents are used. These are often found in fire-fighting foams and should not be directed towards, or allowed to enter, a drainage system.

If you use oil separators to contain large spillages, make sure they are not bypass type separators. Separators may also be fitted with penstock valves, at both inlet and outlet, to provide flexibility in handling spillages.

See **Reference 9**: GPP 3: The use of oil separators in surface water drainage.

4.4 Isolation tanks

Where there are constraints on space on the site then you could construct isolation tanks. Runoff can be diverted into these tanks. The capacity must match the calculated volume of runoff from a worst-case scenario incident.

Although most tanks are not designed specifically for the containment of spillages or fire-fighting water, the UK standards for liquid storage tanks and vessels are high and many of these are suitable for use as secondary containment. They may be more expensive to construct than lagoons, but this can be offset by the smaller land area required. A tank has the benefit of allowing you to reuse the fire-fighting water if this is appropriate.

The actual type, size, design standards and protective finishes of the tank will be influenced by the site's risk rating, the retention time, the quantity and the nature of the materials stored. Where available, an economical option might be to make use of an adequate redundant or spare tank. Tanks can be constructed both above and below ground.

Above ground storage tanks:

- Proprietary agricultural storage tanks used for agricultural waste
- Welded steel tanks used for oil, petroleum, and other liquids
- Sectional steel rectangular storage tanks for liquids

- Reinforced plastic tanks
- Reinforced concrete tanks
- Reinforced concrete and masonry tanks.

Below ground storage tanks:

- Reinforced masonry
- In-situ reinforced concrete
- Tanks formed from embedded steel piling walls
- Reinforced plastic tanks
- Welded steel tanks used for oil, petroleum, or other liquids
- Deep shaft tanks

You should line tanks with appropriate coatings to protect against corrosion and aggressive chemicals. Make sure they can hold the types of substance you store on your site.

You must also make sure that they have sufficient capacity, with a minimum of 300mm of freeboard provided as a buffer, see figure 5.

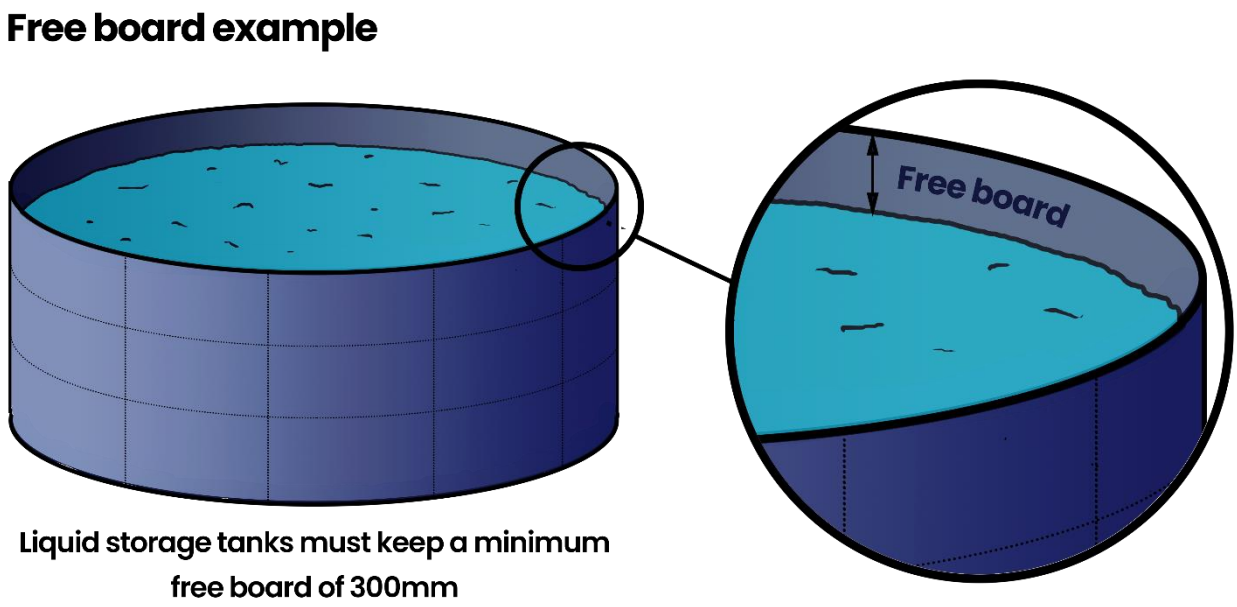

Figure 5. Free board example in a steel storage tank.

Tanks must not have any overflows that could allow the escape of stored liquid. Tanks that are open to rainwater will require regular monitoring and emptying to maintain the necessary containment capacity.

You should design the tanks to be capable of dealing with a worst-case scenario. The overall depth of the tank including freeboard, should be taken as the minimum design depth when assessing the static head of contained liquids.

In some emergency situations it may be possible to use storm tanks on the sewerage system, at a sewage treatment works (STW) or at other effluent treatment facilities.

You must get permission from the sewerage undertaker or treatment plant operator. This option should only be used as a last resort and should not be relied upon, as the tanks may be full in the event of a storm.

The effects of the discharge on the STW should also be considered, as damage to the treatment process may result in greater environmental harm, due to the discharge of raw or partially treated sewage, as well as the contaminated run-off. Alternative means of disposal may need to be considered if the contained material is unsuitable for treatment at the STW.

4.5 Sustainable drainage systems

Sustainable drainage systems (SuDS) are designed to slow the discharge of rainwater runoff from a site. This can include a range of techniques, which might involve the infiltration of clean run-off into groundwater and the slowed discharge of clean water to features such as streams, rivers and lochs, loughs. As such they are not suitable for the treatment or containment of fire-fighting water runoff which may be contaminated with harmful substances.

It is important that SuDs are protected from fire-fighting water. They should be considered part of the drainage system and should be protected, using appropriate methods to block to flow of contaminated runoff.

Section 5. Emergency containment: Containing major spills and fire-fighting water runoff

The capacity of your emergency containment must take into account the following:

- 100% of primary capacity. Consider the possible failure modes and where appropriate, include the capacity of all primary tanks in multi-tank installations.
- Rainfall – include additional volume to allow for:
- a 10-year return, 8 days rainfall prior to the incident,
- a 10-year return, 24 hour rainfall,
- plus an allowance for rain falling directly on to remote containment and areas of the site draining into it, immediately after the incident.
- Fire-fighting and cooling water - Allowance for extinguishing and cooling water delivered through fixed and non-fixed installations based on then methodologies in BS5306 **(Reference 2),** Combustion Engineering Association **(Reference 3)**, and Energy Institute **(Reference 11)** taking into account the particular circumstances of the site. It is important that you consult with the environmental regulators and the fire service.
- Foam - Allow a freeboard of not less than 100 mm.
- Dynamic effects - this is to allow for the initial surge of liquid and for wind-blown waves. In the absence of detailed analysis, allow 250mm (750 mm for earth walled bunds).

See **Reference 8:** CIRIA: Containment systems for the prevention of pollution

In the event of a major spill or the runoff from firewater it is important that all drainage on the site can be blocked, either with shut-off valves or the use of drain mats. Booms can be used to divert the flow away from sensitive areas and towards secure, bunded hard standing.

You should take steps to ensure that in the event of a major spillage, or fire, hazardous substances cannot be discharged into your site's drainage system or off site to land or water.

You must make sure that you build interceptors or sumps into the drainage system, of sufficient capacity to ensure that contaminated liquids are contained onsite. This will ensure that no offsite major accident occurs.

A **hazard and operability study** (HAZOP), or an alternative hazard identification methodology should be used to identify such hazards.

You must not plan to divert fire-fighting water to a foul sewer as this can cause pollution – see **Reference 10** Water UK: Guidance on dealing with firewater runoff.

If your sewerage undertaker is willing to accept fire-fighting water discharges to foul sewer, then they must confirm this in writing.

Your HAZOP study should demonstrate that all firewater or spillages can be contained given a worst-case scenario on your site. It is important that all contaminated runoff is contained, and none is allowed to pollute soil, surface water or groundwater.

Diverting contaminated runoff to the sewer network can overload wastewater treatment plants and create a pollution incident in the receiving environment. Preventing firewater or other major spills entering drains should be a priority. Anything which is passed to the sewer which harms the sewer, treatment processes (sewage and biosolids), interferes with the free flow of the sewer, or poses a risk to H&S would be an offence.

It may be possible to contain, treat, and decontaminate the runoff, then discharge to sewer, but only with the written consent of the sewerage provider.

5.1 Sacrificial areas

5.1.1 Bunding of vehicle parking and other areas of hard standing

The design of your site could include impermeable bunds surrounding areas of hard standing which can be used to contain major spills or firewater. These storage lagoons are areas that can contain the overflow from secondary containment. They would also prevent the escape of pollution to permeable surfaces, or areas that drain to the wider environment.

Areas of hard standing can be used as an overflow area to store runoff. A car park surrounded by an impermeable bund could be an emergency storage area. Blocking drains would make this a secure, large capacity, temporary storage area.

If an area of permeable ground is used for temporary storage it should be protected using an impermeable membrane or other liner. Permanent protection can be created using 1 metre of engineered clay, with a maximum permeability of 1x10-9 m/sec, to line the lagoon.

These areas can also be used for controlling stormwater run-off from your site, as an emergency backup for existing SuDS.

5.1.2 Pits and trenches

If no alternative exists, or if your emergency system fails, then you could consider using pits or trenches to capture firewater or spillages. Their use creates a risk of groundwater pollution and can create contaminated soil.

Lining the pits or trenches with a suitable material can reduce the risk, but the liner must be able to withstand the substances contained in the runoff. If you can't use a liner, then you will need to excavate any contaminated soil, and have it removed to a site where it can be treated if necessary and disposed of legally. You could minimise pollution by pumping the firewater runoff, or spilled materials, into portable tanks or tankers as soon as possible.

You could also add reagents to pits or trenches to neutralise harmful substances.

5.1.3 Portable tanks, overdrums and tankers

Portable tanks can be moved rapidly around your site to where they are needed. You can use them to capture runoff from the fire or spillage location, or where runoff has been contained.

Plan where portable tanks can be used.

- As part of your pollution incident response plan, you must pre-select suitable points in the drainage systems where the drainage pipe can be blocked, and a man-hole chamber used as a pump sump to transfer contaminated waters to the tank. A suitable pump, which may need to be flame-proof, will also be required.
- Your plan should include locations where portable tanks can be placed, such as in car parks. The chosen locations must have enough space and have ground that can support the weight of the full tank.
- If you use very large portable tanks, they may need to be supported by a frame.

- Your plan could include the potential to re-use the captured runoff to tackle the fire. You would need to consider the materials present on the site, and the risks to equipment, staff and fire crews associated with the re-use of the fire-fighting water runoff.
- Over drums are designed to safely store leaking drums but can also be used as a temporary store for small quantities of spilt liquid.
- You can fit re-usable liners to over drums and portable tanks. You must make sure they are resistant to attack from the stored substances.
- Tankers can also be used to collect quantities of spilled liquids.

Image 1. Chemical spill training with the Scottish Fire and Rescue Service (Courtesy SEPA)

Section 6. Emergency materials and equipment

6.1 Sand and earth

These are relatively cheap containment materials which you can use to soak up spillages of oil and chemicals. They can also be used in sandbags to block off drains or to direct flows to a planned collection point. Sand should be kept dry, and a shovel should be available.

Contaminated material must be properly disposed of and must not be washed into the drainage system.

6.2 Absorbents

These serve a similar purpose to sand. They are available as granules, sheets, pillows or a loose powder. Although most absorbents are designed for hydrocarbon spills, a range of products is available for different types of spills including different types of chemicals.

6.3 Sealing devices and repair kits

These devices and materials are designed for use when a tank, storage drum, valve or pipe has been punctured or damaged. Leak sealing devices may take the form of:

- a pad or clamp which is put over the damaged area like a plaster, or they may be pre-shaped, inserted into the damaged area and then inflated.
- Leak sealing putties are also available, ready-made or supplied in a dry powder form for mixing with water. These are applied over the damaged area to form a temporary seal.

A more permanent method may be required before moving the damaged vessel.

6.4 Fire-fighting water booms

Fire-fighting water can be diverted to a storage tank or temporary storage area using the type of booms that are used on watercourses. Barrier booms can be filled with air or water.

You can also use absorbent booms – which are filled with absorbent materials which can soak up hydrocarbons, aqueous chemicals or both.

This equipment will allow you to divert firewater or spillages into safe impermeable areas and to prevent the escape of polluting liquids.

Ensure that they are accessible close to where they will be needed and make sure staff are trained in their correct use.

6.5 Drain seals

Drain seals are essential to prevent firewater or contaminated runoff from entering drains. They can be used to cover or block a drain or can fit inside a pipe. Blocking off a drain can allow you to use the drains as a retention system, which could provide a significant storage volume. You must check that the contained liquid doesn't escape from gullies or somewhere else on the drainage system.

If an area such as a car park is to be used as a temporary storage lagoon, it is essential that any drains are completely blocked off.

Keep drain mats accessible and close to where they might be needed. Staff must know where to find them and must be trained in their use.

Equipment must be checked and replaced once used.

Section 7. Waste Management

Plan for disposal of any spillages, contaminated material or fire-fighting water.
If re-use is possible then any spilled material that is captured by the measures, you have put in place should be returned and stored on site.

7.1 Disposal options for contaminated material or firewater.

Collection and disposal by a registered waste carrier, either using a Waste Transfer Note, or a Consignment Note if the waste is classed as Hazardous/special waste. You will need to identify any contaminants and ensure that the correct EWC codes are used.

See **Reference 12:** Duty of Care for Waste

Disposal to a foul sewer. You might be able to remove oil contamination using an oil separator, however fire-fighting foam may interfere with this process. You must contain the fire-fighting water, identify what it contains, and carry out any treatment that is required before it is discharged into the sewer network. You must have the written permission of the sewer provider before any discharge takes place.

You must not release anything into the sewer which could damage the sewer network, or adversely affect the operation of the water treatment works.

See **Reference 10:** Water UK: Guidance on dealing with firewater runoff

Section 8. Fire-fighting strategies - run-off management

Your plan should consider different fire-fighting strategies and possible methods of reducing the amount of firewater run-off generated.

You could for example use sprays rather than jets, controlled burn and the re-cycling of fire-fighting water, where safe and practicable to do so.

You can get advice on how best to manage a fire on your site from the Fire and Rescue Service, who will advise you on best fire-fighting practice.

See **Reference 13:** Fire and rescue service.

Section 9. Incident response

Incident hotline numbers

In **Scotland**, **Northern Ireland** and **England** call: **0800 80 70 60**

(24 hour service).

In **Wales** call: **0300 065 3000** (press 1 for 24 hour service).

You should immediately report any environmental incidents by calling the Incident Hotline for your country.

You should follow your incident response plan.

If you are using oils and chemicals in close proximity to the water environment, store a suitable spill kit or absorbent materials nearby. Provide appropriate temporary storage for any oils and chemicals. Contain all spillages using absorbents such as sand, soil or commercially available booms or pads and notify the environmental regulator immediately, using the Incident Hotline numbers above.

References

Reference 1 GPP 21: Pollution Incident Response Plans.

Available at: https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/gpp-21-pollution-incident-response-planning/

Reference 2 BSI: BS5306 Fire extinguishing installations and equipment on premises

Available at: https://landingpage.bsigroup.com/LandingPage/Series?UPI=BS%205306

Reference 3 Combustion Engineering Association

Available at: https://cea.org.uk/

Reference 4 Model Code of Safe Practice Part 19: Fire precautions at petroleum refineries and bulk storage installations.

Available at: https://publishing.energyinst.org/topics/process-safety/risk-assessment/model-code-of-safe-practice-part-19-fire-precautions-at-petroleum-refineries-and-bulk-storage-installations

Reference 5 GPP26: Safe storage of drums and intermediate bulk containers.

Available at: https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/gpp-26-safe-storage-drums-and-intermediate-bulk-containers/

Reference 6 GPP 2: Above ground oil storage

Available at: https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/gpp-2-above-ground-oil-storage/

Reference 7 HSE: Secondary containment general principles

Available at: https://www.hse.gov.uk/comah/sragtech/techmeascontain.htm

Reference 8 CIRIA: Containment systems for the prevention of pollution

Available at: https://www.ciria.org/ItemDetail?iProductCode=C736F&Category=FREEPUBS

Reference 9 GPP3: The use of oil separators in surface water drainage.

Available at: https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/gpp-3-use-and-design-of-oil-separators-in-surface-water-drainage-systems/

Reference 10 Water UK: Guidance on dealing with firewater runoff

Available at: https://www.water.org.uk/guidance/guidance-on-dealing-with-firewater-runoff/

Reference 11 Energy Institute: Model Code of Safe Practice Part 19: Fire precautions at petroleum refineries and bulk storage installations

Available at: https://publishing.energyinst.org/topics/process-safety/risk-assessment/model-code-of-safe-practice-part-19-fire-precautions-at-petroleum-refineries-and-bulk-storage-installations

Reference 12 NetRegs: Duty of Care for Waste

Available at: https://www.netregs.org.uk/environmental-topics/waste/duty-of-care-your-waste-responsibilities/

Reference 13 Fire and Rescue Service

In Scotland: https://www.firescotland.gov.uk/

In Northern Ireland: https://www.nifrs.org/

In Wales: https://www.gov.wales/find-your-local-fire-and-rescue-service

Further information

For information about environmental compliance, or to report inconsistencies or inaccuracies in this guidance, visit www.netregs.org.uk.

You can view guidance on environmental regulations online at www.netregs.org.uk (for businesses in Scotland and Northern Ireland) and at http://naturalresources.Wales (for businesses in Wales).

This guidance is issued by the Scottish Environment Protection Agency (SEPA), Northern Ireland Environment Agency (NIEA) and Natural Resources Wales (NRW).

This document is available at www.netregs.org.uk/environmental-topics/pollution-preventionguidelines-ppgs-and-replacement-series/.

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