

ESA 1 - UNDERSTANDING YOUR ENVIRONMENTAL RESPONSIBILITIES

This advice is provided and maintained by the BSIF and is intended for guidance only. The information is provided in good faith, based upon the best information available at the time of writing and is to be relied on at the user's own risk.

Please remember that you have the responsibility to stay up to date with compliance matters and we recommend that you regularly check and review that what you do is in compliance with current legislation. Following good environmental practice will significantly reduce the chances of you causing an environmental incident, which you could be prosecuted for; and/or incur the costs of clean up etc.

Companies who are found to be responsible for a pollution incident may be subject to prosecution if they have not followed best environmental practice; and to the costs of clean up and civil undertakings (e.g. restocking fish).

Following this advice will help you manage your environmental responsibilities, prevent pollution and comply with the law. BSIF provide a series of Environmental Safeguarding Advice documents which we believe you will find useful. These can be downloaded at www.bsif.co.uk/resources

The advice given is based on available information and legislation and its' interpretation by BSIF. BSIF will not accept any direct or indirect liability deriving from following advice or guidance. For access/guidance on the steps you must take as a business to comply with the law by not causing pollution visit www.gov.uk or if your business is based in Scotland or Northern Ireland visit www.netregs.org.uk

The content of this Environmental Safeguarding Advice is recognised by the Environment Agency.

BASIC CHECKLIST

Action	See section
Understand why you need to take action to protect the environment and comply with the law, and how it could benefit you.	1
Know your drains: make a drainage plan of your premises, identifying your drains and where they go to. Get permission for discharges where required.	2
Understand how your treatment facilities work such as septic tanks or oil separators and maintain them properly.	2
Store oils, chemicals and other materials in suitable containers, in safe locations, and handle them correctly to avoid spills.	3
Install secondary containment for stored materials where possible, or where you are required to do so by law.	3
Reduce, reuse and recycle where possible. Plan your activities carefully to help you do this and avoid waste.	4
Use only legal and appropriate waste carriers to take your waste away. Know what happens to your waste	4
Make an emergency plan in case things go wrong. Test it regularly.	5
Know if you are at risk of fire or flood. Ask for expert advice to help you reduce your risk and minimise the consequences.	5

1. UNDERSTANDING YOUR ENVIRONMENTAL RESPONSIBILITIES

1.1. WHAT'S IN IT FOR YOU?

Legal compliance: If you or your business causes pollution or don't comply with an issued permit, legal action may be taken against you. Those responsible for the offence may be prosecuted. You may get a fine or go to prison and/or you may have to pay to put things right. Enforcement is overseen by different agencies dependent upon which UK country your business is based in and as an example; in England the Environment Agency may in some circumstances issue an enforcement undertaking as an alternative to prosecution when taking enforcement action.

Save money: If you cause pollution, your insurance costs may increase, you may have to pay compensation and pay to put things right. This could include the regulators clean up and response costs but also claims from third parties e.g. fisheries owners. The costs of any legal action can be high. You may lose materials or assets which you have already paid for and you may affect your business's competitiveness by damaging your business reputation.

Manage risk: Businesses which manage the risks to their success are often better prepared to deal efficiently with problems when they happen. Managing risks gives you peace of mind and maximises your chances of running a successful business.

Enhance your reputation: Legal compliance and implementing good practice will improve your reputation with customers, investors and your neighbours. Remember, it is a criminal offence to cause pollution. Whether you are carrying out activities that are permitted or not; you need to be aware of any amenity impacts you may have on neighbouring properties and the nearby locality.

Remember, a little effort can go a long way to protect you, your business, your community and the environment from the serious consequences of pollution.

Pollution occurs when substances released to water, land or to air have a harmful effect on the environment. It can affect drinking water supplies, people's health and wellbeing, business activities, wildlife and habitats; and our enjoyment and use of the environment.

Remember pollution and its impacts aren't always visible. Groundwater for example is out of sight and can easily be polluted from a wide range of sources; leading to poor drinking water quality and the loss of water supply.

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).

Many different substances can cause pollution - common examples include fuels and oils, chemicals, sewage, farm manure or slurry, detergents, water containing significant amounts of silt, milk, beer and or fruit juices and fire-fighting water run-off.

You should fully assess your facilities (inside and outdoors) to understand all your activities; what pollution links (Source - Pathway - Receptor) you have (see Figure 1) and how they could affect the environment by causing pollution.

1.2. WHY DO WE NEED TO PROTECT OUR ENVIRONMENT?

Pollution occurs when substances released to water, land or to air have a harmful effect on our environment. It can affect our drinking water supplies, people's health, business activities, wildlife and habitats, and our enjoyment and use of the environment. Groundwater is not always visible but can still be polluted if you allow chemicals and oils to soak into the ground. You might not see it, but you can pollute it.

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You should understand your premises and how your activities could affect the environment and cause pollution. Think about what pollution links you have (see Figure 1).

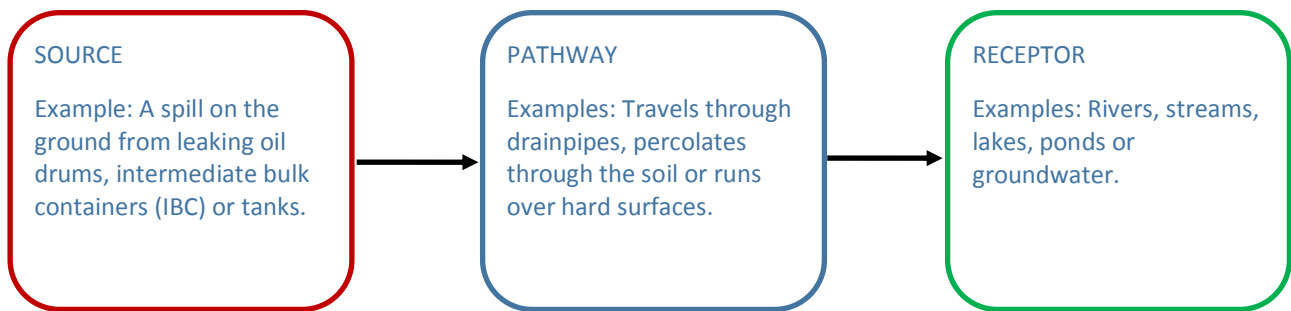


Figure 1: Example of pollution links using the source-pathway-receptor model (Diagram courtesy of the Environment Agency)

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 so that any pollutant does not reach the receptor and can be cleaned up. 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.

2. YOUR DRAINS: MAKING SURE DIRTY WATER LEAVES YOUR PREMISES PROPERLY

2.1. WHAT ACTIVITIES DO YOU NEED TO THINK ABOUT?

Almost all premises produce dirty water which could cause pollution if it enters rivers, streams, ditches or groundwater. Dirty water comes from kitchens, bathrooms, toilet and laundry facilities, vehicle and plant washing, and rainwater run-off from dirty areas of your premises and liquid wastes or trade effluents from your business activities.

Many premises also store liquid materials such as chemicals, fuels and oils, milk or fertilisers which can spill, leak or release their contents if there is a fire or flood. Solids waste such as tyres and plastics are a low hazard in steady state but when burning can give rise water pollutants. Don't forget rainwater which should drain away from your premises efficiently to reduce your flood risk.

If you're using any of these kinds of materials, storing or moving them, or making changes to your premises, you should understand your drains and know where they go to.

2.2. WHY IS IT IMPORTANT?

Drains are common pathways for dirty water to enter the environment and cause pollution, through wrong connections, spills and leaks, fires and poor or inadequate maintenance and construction. To reduce the risk of pollution, you should know where your drains are, where they go and correct any problems you may find, such as wrongly-connected or wrongly labelled pipes. Drains that are too small for the area are prone to blockage, overflowing or backing up.

You must not allow dirty water to enter surface water drains or storm drains, watercourses or groundwater. Surface water drains should only accept water that falls on clean surfaces that are free of pollutants e.g. clean yard and roof areas as surface water drains can discharge straight into a river, stream or into groundwater.

If you make changes to your premises, such as building an extension or changing activities, you should understand your drainage systems so you can manage these changes safely, cost-effectively and without causing pollution.

You must get permission for any dirty water or treated dirty water (such as trade effluents) discharges to foul, from your sewerage company - or to the environment, from your local regulator.

2.3. WHERE DO YOUR DRAINS GO?

Everyone working in your company should know about the drainage system. Contractors and visitors may also need this information.

We recommend all premises create a drainage plan. Your drainage plan will help you plan where to carry out activities safely and help you to maintain and inspect your drains. Make sure the plan is available when needed.

You should talk to your sewerage company, landlord or a drainage consultant to help you work out what drains and facilities you have.

'Separate systems' have two drains, one for dirty water (foul drain) which goes for treatment and one for clean water (surface water or storm drain) which goes directly to a ditch, stream, river or soakaway/groundwater (see Figure 2). 'Combined systems' have one drain carrying dirty and clean water for treatment. You may have one or a combination of systems at your premises and you may have highway drains too.

You must only allow clean water, such as rainfall, to enter surface water or storm drains.

Identify the type of drainage system you have, the route and direction of your drains, including their destination when they leave your premises. Colour-code the manholes to help identify them easily, using red for foul drains and blue for clean water drains. We recommend that your drainage plan should identify any nearby waterways, particularly if any of your drains discharge to them.

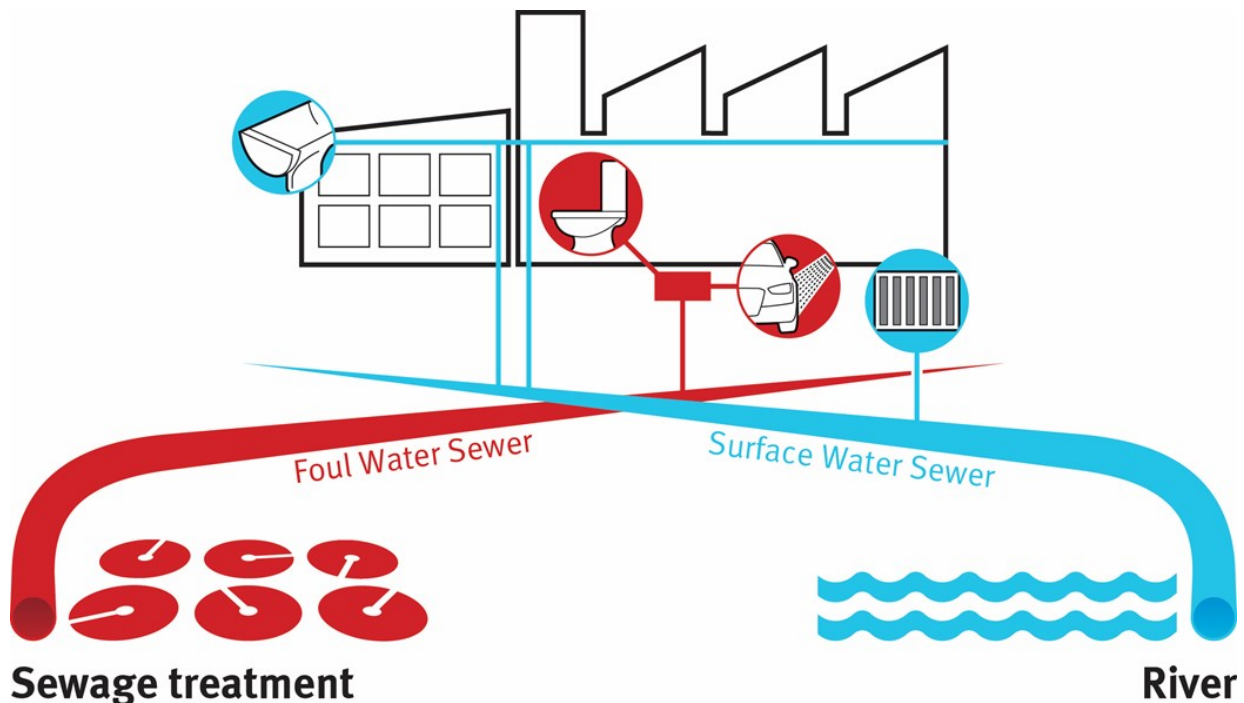


Figure 2: Examples of clean and dirty water sources at a premises and sewers to which they should drain. (Diagram courtesy of the Environment Agency)

You may have treatment facilities on your premises, such as septic tanks or package plants which treat sewage or separators, also known as interceptors, which separate oil from water. If you don't operate and maintain these systems properly they are

likely to pollute the environment. Consider whether you should find out more about your drainage system and treatment facilities, how they work, maintenance, how to correct any problems and if you need to make improvements.

Mark treatment facilities on a plan of your premises, along with the location of any access manholes and shut-off valves. Make sure they are labelled clearly on your premises so that contractors and staff are aware.

If you wash and clean vehicles on your premises, you must consider what happens to the dirty water run-off. Remember, if you use detergents, oil separators will not work.

3. HOW DO I STORE AND USE OILS, CHEMICALS AND OTHER MATERIALS SAFELY?

3.1. WHAT ACTIVITIES DO YOU NEED TO THINK ABOUT?

You may store, handle and use a wide range of materials at your premises. Some of these materials may not seem potentially polluting but can be very damaging to the environment.

You must also consider what visitors and contractors may deliver, collect, store or handle whilst they are on your premises, even if you don't own these materials.

3.2. WHY IS THIS IMPORTANT?

Oils and chemicals are obvious sources of potential environmental harm, but other materials such as food and drink products, tyres, plastics, waste and detergents can cause significant pollution. You should reduce the likelihood of pollution happening by considering what hazards are associated with the materials you have and where you store and how you handle them.

Remember, you have already paid for these materials and if you lose a quantity of them, you are losing money, before you start to pay for any clean-up. You also want to avoid any health and safety problems which could affect people on your premises or people nearby.

3.3. WHAT DO YOU STORE AND HOW DO YOU STORE IT?

Identify what you store and understand the risks from those materials. Consider the product information you get from your suppliers and take advice from waste management companies and others.

Make sure you store materials including wastes in a safe place and mark the location(s) on a plan: use your drainage plan to help you identify the safest locations for storage. Consider how, when and why you use the materials and whether you could make improvements.

Avoid storing materials near open drains, on bare ground, near to watercourses, soakaways and other sensitive areas. You should store all potentially polluting substances on leak-free (impermeable) surfaces. Remember, leaks and spills to ground could pollute groundwater, which is expensive and difficult to clean up, and may affect drinking water supplies. We also recommend you store materials where they're protected from damage by collision and extremes of weather, including flooding.

3.4. HOW SUITABLE ARE YOUR STORAGE AREAS AND CONTAINERS?

Store all potentially polluting materials in suitable, labelled containers in dedicated storage areas which are designed, constructed and maintained properly. Inspect your storage areas and containers regularly to make sure they are in good condition, including being free of cracks and leaks.

Consider if there are any legal requirements which may apply to the material you are storing; such as oil (Reference the Oil Storage Regulation appropriate to the country you operate in) and if you must store any materials separately for incompatibility or fire risk reasons.

Make sure you think about how to keep your materials secure on your premises to reduce the risk of accidental damage, vandalism, arson or theft.

3.5. CAN YOU CONTAIN LEAKS AND SPILLS?

You can't completely avoid spills and leaks, so put in place measures to reduce their likelihood and severity. You should be able to catch minor spills, leaks or overflows from your containers or stores and be able to clean them up easily and safely using pollution clean-up spill kits. Oil separators and drain closure valves can offer further protection

Consider installing and maintaining secondary containment, such as a bund or using banded pallets or banded storage units. Your secondary containment should be able to hold more volume than any of the drums, IBCs or tanks are able to hold, commonly called 110% containment. In some cases this is a legal requirement, such as when storing oils. Secondary containment holds any split materials giving you time to either correct or minimise the problem and to get help.

You should regularly inspect and maintain your secondary containment to ensure it's still effective, such as sealing any cracks or holes, making sure any walls or floors are rendered impermeable, and safely removing any rainwater from the secondary containment.

You and others on your premises should know where to find your spill kits, understand how to use them properly and understand how to store and use materials safely. Label your spill kits and check their contents regularly.

If you have a spill or any pollution incident, report it immediately to the appropriate agency where you will receive advice on what to do and help with informing others:

Environment Agency: 0800 807060

Scottish Environment Protection Agency: Pollution hotline 0800 80 70 60

Natural Resources Wales: 0300 065 3000

Northern Ireland Environment Agency: 0800 80 70 60

3.6. SAFE DELIVERY AND HANDLING

Delivery and handling of materials are risky activities which you may regularly carry out on your premises.

You should have procedures for safe collection, delivery and handling for everyone to follow. We recommend supervising all deliveries and collections to make sure your procedures are being followed.

Think about how you could minimise moving materials when loading and unloading, this could save you time and money.

3.7. WHERE NEXT?

For additional advice on preventing pollution please visit the BSIF website or visit your local regulators website for current government regulatory guidance.

4. HOW DO I THROW LESS AWAY AND DISPOSE OF WASTE CORRECTLY?

4.1. WHAT ACTIVITIES DO YOU NEED TO THINK ABOUT?

Everything you buy and use on your premises might end up as waste, from food to packaging, to off-cuts. What waste are you generating at each stage of your activities? How do you manage this waste, including storage, transport, treatment or disposal?

4.2. WHY IS THIS IMPORTANT?

Everyone generates waste. Poorly managed waste can pollute the environment, for example through illegal dumping or leaking into the ground or watercourses or if involved in a fire i.e. toxic smoke and firewater.

You have a responsibility, called The Duty of Care to ensure you produce, store, transport and dispose of waste without harming the environment. This includes waste you produce directly and indirectly, such as waste produced by a contractor doing work on your behalf.

4.3. WHAT WASTE DO YOU GENERATE?

Waste is any substance or object which you discard, intend to discard or are required to discard. Waste which is most hazardous to the environment or human health, such as solvents, asbestos and oils must be managed differently from other waste. You must understand what types of waste you produce and how you must manage them by law.

4.4. MINIMISING THE AMOUNT OF WASTE YOU CREATE

Consider what you buy, and think how you could use less, how you could get the most out of what you do use and where you can, re-use, recycle or recover more. Disposal should always be your last option (see Figure 3). The best way to do this is to reduce the amount of waste you produce and to store different sorts of waste separately to make it easier to recycle.

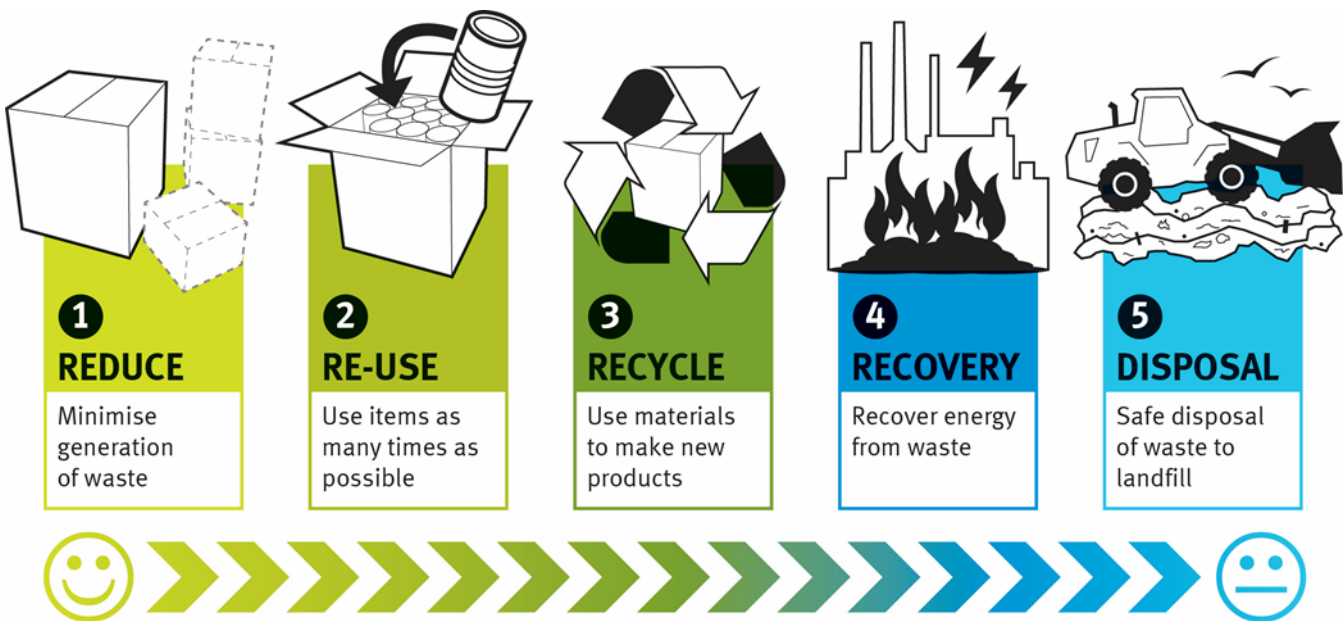


Figure 3: 'Waste hierarchy' - waste management options in the order of their environmental impact. (Diagram courtesy of the Environment Agency)

HOW DO YOU STORE AND HANDLE YOUR WASTE?

Store your waste separately where possible to make reuse and recycling easier. For example, separate paper from plastic waste. Use a designated clearly-labelled storage area. You must store your waste securely to prevent it blowing about or leaking, and to prevent access by people or animals. Only mix waste where it is safe and legal to do so.

Dependant on which part of the UK your business is based in the law relating to the separation and disposal of waste and its associated paperwork differs. It is important that you are up to date and compliant with the law as it applies to you.

Remember disposal is very expensive remember, by throwing something away, you are paying for it twice, once when you buy it and again to dispose of it.

Some types of waste, called 'hazardous waste', or, in Scotland, 'special waste', are very harmful to human health or to the environment. You must store, handle and dispose of these differently to non-hazardous waste. You must not mix different types of hazardous or special waste together. If you mix hazardous or special waste with non-hazardous waste then you must consider everything as hazardous or special waste which will be more costly to deal with and dispose of.

Consider the security of your premises too any waste dumped on your property becomes your responsibility to remove, and it will cost you money. You also don't want any vandalism of your waste or product storage areas.

4.6. HOW DO YOU DISPOSE OF YOUR WASTE?

You must only use a registered waste carrier to take your waste away. Check any waste carriers credentials and licence before you buy their services. Also, check that they will take your waste to a site permitted to deal with your type of waste. Remember, not all waste management sites can take all types of waste.

You can transport your own waste to a permitted waste site, but you may need to register as a waste carrier or as a professional collector or transporter of waste, depending on where you are in the United Kingdom, what you are carrying and how often you do it. Check with your local regulator first.

You must keep records of waste you have transferred to another person for up to 3 years. Hazardous /special waste requires different types of paperwork.

4.7. WHERE NEXT?

For additional advice on preventing pollution please visit the BSIF website at www.bsif.co.uk or contact your local regulator for current government regulatory guidance.

5. WHAT DO I DO WHEN THINGS GO WRONG OR IF THERE IS AN EMERGENCY?

5.1. WHAT ACTIVITIES DO YOU NEED TO THINK ABOUT?

Sometimes things go wrong. The better prepared you are for a crisis, however small, the better you'll be able to deal with it.

Think about your premises and consider what could go wrong, how and why. Consider fires, flooding, accidents, power cuts and sewer blockages, vandalism, leaks and spills and how these may occur. Also consider staff shortages (for whatever reason), the loss of contracts or changes in market conditions that could lead to stockpiling. Also consider failure of essential equipment parts and difficulties in sourcing them.

5.2. WHY IS THIS IMPORTANT?

Even minor problems can have a large impact on you, your premises and your ability to carry on as normal with your daily activities. Dealing with the unknown is always more difficult, time-consuming and stressful than putting into action a plan you have prepared and practiced.

Remember, you are responsible for any contractors working on your behalf, so you must make sure you give them clear work instructions and supervise them appropriately.

5.3. PLANNING AND TRAINING FOR PROBLEMS AND EMERGENCIES

The best way for you to cope when problems and emergencies arise is to plan. Well managed premises are less likely to have problems in the first place.

We recommend that you create and implement an incident response plan. You may even have a legal responsibility to make a plan. It should include procedures to deal with problems and emergencies and include a copy of your drainage plan. You should ensure everyone on your premises including visitors understand what they need to do. Keep a copy of your plan off site too, so you can access it during any out of hour's emergency or if site access is not possible. Make sure people know where copies are kept.

Check whether your premises are at risk from flooding, if they are, make a flood plan and sign up for flood warnings.

Consider talking to your insurance company and local authority Fire & Rescue Service as they are likely to have valuable insight that will not only assist you prepare your site incident response plan; but save you money in the long run. If you have particular hazards on site the Fire & Rescue Service may wish to produce their own risk information plan.

Make time to regularly train people in the correct procedures and how to respond to incidents using the spill response equipment you provide. Review and update your procedures to keep them relevant. Do this each time you make changes to your premises and review the procedures and training after every incident.

You should provide protective clothing (PPE) and pollution control equipment which is appropriate to your premises and the potential risks on your site. Make sure you keep this equipment in good condition, replaced when necessary and ensure that people know where it is and how to use it.

If you have a pollution incident, report it immediately to your local environmental regulator (ensuring you add the contact details to your plan) where you will get advice on what to do and help with informing others.