Best Practice in Spill Prevention in the Waste Management Industry

March 2013

Foreword

Spill prevention and containment – There is a better way

The waste management industry works hard to manage all that is thrown at it. However pollution from waste spills can so easily undo all of the good work. Therefore, ensuring best practice in preventing spills is a key objective, and this report aims to show the art of the possible and encourages waste operators to do what is right for their businesses and the environment.

The British Safety Industry Federation (BSIF) and the Environment Agency (EA) commissioned this research to focus specifically on spills from the waste industry because this industry has a high frequency of contamination caused by spills posing a risk to customers, employers, the environment and very significantly, the business itself.

The report gives an insight into the most common spills faced by waste companies on and off site, how the companies handle them and what best practice they could implement in future. The report also outlines the key spill issues faced by the industry.

The EA welcomes and appreciates the honest input of those who were interviewed about their experience of spills. Based on feedback from the participants, EA also acknowledges that it can improve its provision of clear practical guidance on spill prevention and containment. The EA has already produced a number of guides to help the industry including “Is your site right?”,“Pollution Prevention Pays” and a range of Pollution Prevention Guidelines (PPGs). An educational DVD is planned which will include new posters to be displayed on sites. All information resources are free and are available on www.environment-agency.gov.uk/ppg.

The EA looks forward to continuing to work with the industry to encourage the improvement of environment standards for the benefit of all.

BSIF believes the waste management sector will find this report useful as it clearly sets out the key elements of best practice and how they can be achieved by small and big companies handling and recycling waste.

Lucy Palmer, Environment Agency

David Lummis, CEO of the BSIF

Note: In this document lines starting Q” are quotes from the research conducted

Contents

Executive Summary

The BSIF and EA's objective in commissioning and writing this report, which examines spills in the waste industry, is to encourage organisations to adopt best practice to reduce the spill incident rate, the severity of pollution and the wasted cost to industry.

Over 20 industry figures participated in the research detailing their experiences of dealing with spillages.

The most common spills encountered by participants are around moving oil and diesel, leachate, chemical spills and fire water run-off. The most essential measures employed to prevent and contain spills include carrying out risk assessments (a requirement of the legislation), implementing Environment Management Plans and staff training. Some control measures described included spill kits, double skinned tanks and sealed drainage systems i.e. a system that is not connected to surface or foul sewer such as a sealed sump.

In relation to what makes for best practice, participants agreed that fostering a positive culture through good leadership and active employee engagement were critical.

In order to encourage best practice, participants felt that a combination of incentives and penalties should be employed. It was acknowledged that some operators would never comply with guidelines and would need to be penalised. However, those excelling in their handling of waste could be rewarded e.g. with fewer EA inspections, which is what happens.

The EA recognises that 'a carrot and stick' approach is useful and is fully committed to working in partnership with all operators to help them meet their legal obligations and environment responsibilities.

Spills cause damage and cost money. It is in everyone's interest to prevent spills and where necessary contain them safely. With this in mind the BSIF and EA have produced 'A Spill & Control Checklist for the Waste Management Industry' which accompanies the Report.

A Spill Prevention & Control Checklist for the Waste Management Industry

This guide is designed as a checklist to help you deal with spills. The checklist is not exhaustive and particular circumstances within your own site or operation may require additional actions.

Successful spill prevention and containment requires forethought, preparation and planning before an incident occurs. It is essential that each process has been fully analysed to prevent spills and that systems are in place to treat any spill in the most effective manner, should a spill occur. Without planning, reaction to any spill maybe inadequate, inappropriate and possibly dangerous, putting your people and the environment at serious risk.

❑ Assess the Risk

Risk assessments are an essential part of ensuring best practice and should be conducted on a regular basis to provide a detailed analysis of the situation.

'Be prepared or prepare to fail' - Having an incident management plan or a spill response plan in place means you are ready in case something happens.

Liquids

- Which liquids do you have or may be handling and in what quantities?
- Have you read and understood the material data-sheets for each liquid?
- Where are they stored and how are they moved?
- What current arrangements do you have to prevent spills?
- If a spill occurs how could the liquid enter the wider environment?
- How can these entry points be protected?

❑ Control Measures

Control measures are put in place to control risk. One example of a control measure is traffic management on site making sure traffic signage clearly indicates entrance and exit. Another example of a control measure is the equipment used to contain spills such as spill kits. It is important to:

- Review the existing control measures and secondary containment.

- How can these be improved?
- Are the spill prevention and control procedures formally written down, communicated to all staff, updated regularly and available as simple checklists to ensure compliance?
- If applicable, is bunding fully sealed and capable of holding the potential quantity?
- Is the equipment you are using robust enough, protected from damage and in good condition? (For example pipes, joints, tanks etc. Are you using double skinned tanks, crash barriers for protection etc.)?
- Have the work systems been examined to minimise the risk of spills? Are the staff supplied with appropriate equipment (such as mechanical handling devices, appropriate pumping equipment, etc.) to prevent spills?
- Can the drainage system be shut off in the event of a spill e.g. using a shut off valve?
- Does the site allow safe access for vehicles and suitable and safe sites to load and unload materials?
- Are the hazard areas, storage & waste reception areas clearly marked and appropriately protected?
- Are all waste deliveries to the site booked in advance to ensure you know the potential hazard you may be faced with?

Transport and Handling

- Drums of waste liquids
  - Are drums of waste liquids in Overpacks to contain spills in transport?
- Bulk liquids
  - Are discharges of bulk liquids to and from tankers always supervised?

❑ Storage

Storage is a key issue in spill prevention and secondary containment. Get it right and it will serve you well.

Review existing storage arrangements.

- Are the tanks sufficiently robust (double skinned), protected from puncture (perhaps by vehicles or sharp objects) and clearly marked?

- Are the pipes, taps and other equipment in good condition and sufficiently robust and protected?
- Are storage systems locked to prevent theft and vandalism?
- What secondary containment is in place to prevent spills from spreading?
- Has consideration been given to reducing the amounts stored to reduce risk?
- Have your customers been informed of the minimum acceptable container type they should use to deliver waste materials?
- In the event of waste being delivered in unsuitable containers what arrangements have been made to deal with this?
- Do you have quarantine areas?

❑ Site

How you design and operate your business premises will make implementing best practice easier.

Site planning and design

- Is the site traffic separated from storage, piping and waste reception areas?
- Can the drainage system be shut off to prevent pollution?
- In the event of a spill, is the equipment required to respond to a spill close at hand of an appropriate type and in sufficient quantity?
- Are liquids that may react with each other, kept in separate locations?
- Are the Spill Kits suitable for the liquids on site, been evaluated to BS7959, readily available and of sufficient quantity to deal with any likely spill?
- In the event of a spill, has a clean-up and disposal system for the spill waste been formulated and communicated to the workforce?
- Are any small quantities of hazardous liquids or hazardous aerosols held in lockable cabinets?
- What arrangements are in place to contain Fire Water run-off in the event of a fire?


ETRUK

Site drainage

It's important to know your drainage system inside out.

- Do you know where your drains go?
- Do you have an up to date drainage plan of your site?
- Are your drains and manholes marked correctly? Foul-water drains red and surface-water drains blue. Paint combined drainage systems with a red letter C.
- Do you have oil separators on any surface-water drain at risk from oil pollution, particularly fuelling and vehicle parking areas?
- Are these maintained and regularly emptied (oil and silt)?
- Are separators fitted with Oil Monitors and alarms?
- Are the drains fitted with closure (seal systems for pollution prevention) devices? Do the staff understand how and when to use these?
- If not, what alternative closure arrangements can be made (i.e. inserting a removable stopper in the drain pipe)?

❑ Personnel

It is literally in your hands. Good leadership combined with active employee engagement delivers best practice. Improvements can be made by considering the following:

- Training and capability.
- Do the staff understand the toxicity of the chemicals they may come in contact with and how to protect themselves?
- Have the staff been trained in techniques to avoid spills (including training on any specialist equipment they may use)?
- Where loading and unloading waste is an essential requirement has the staff been properly trained and supplied with appropriate equipment?
- Have the staff been trained in first response to spills and the immediate actions they should take in the event of a spill occurring?
- Have the staff been issued with appropriate safety equipment to fully protect themselves and trained in its use?
- Do the staff know and understand where the spill response kits are kept, what they are suitable for and how best to use them?

❑ Review & Inspections

Even though we generally do not like to be inspected, when checks are made, wrongs can be righted and savings can be made.

- Have the systems, equipment and staff training been reviewed recently?

- How regularly is all equipment inspected? Is this often enough?
- Are tanks, connectors, pumps, hoses etc. regularly inspected (inside and out)? Is this often enough?
- How often are vehicles examined to ensure they are in good condition? Is this often enough?
- How often are the systems used reviewed?
- Have the staff received refresher training to ensure they will act competently?
- Are records kept of incidents and the actions taken? Is there any trend which can be overcome?
- Is there a system in place to ensure lessons are learnt from best practice on other sites and a full review and systems revaluation takes place when an incident occurs on your or other sites?
- Is there a system in place to ensure lessons are learnt from best practice on other sites?
- Is there a full review and systems re-evaluation undertaken when an incident occurs on your site?

❑ Management

Do you really care? If management cannot see the benefits of implementing best practice, it is difficult to see how employees will. Review:

- What is the management policy, attitude and responsibility?
- Does the company have an Environment Management Plan?
- Does the management of the site fully 'buy into' the spills control and prevention policies? If not, how can this be improved?
- Are all incidents reported and analysed for improvements in procedures, equipment and response?
- Does the company wish to go beyond just compliance and create best practice and understand the benefits this will deliver?
- Does the company understand the implications to the business should a serious pollution incident be allowed to occur?
- Does the company have, or is it considering, approval to an accreditation scheme and the benefits this could bring?

1. Research Review

Background – Waste management is big business

Nowadays when thinking of waste, the public pictures various shades of recycling bins, compost heaps and still, unfortunately, landfill, fly tipping and waste crime. Rubbish comes in many different guises and according to the Department of Environment, Food and Rural Affairs (Defra) each year we generate approximately 290 million tonnes of it which damages the environment and costs businesses and consumers money. But there is hope.

Waste generation in the UK is gradually declining and recycling is steadily on the increase. Even though waste generation has decreased, there is still a lot to dispose of and this has led to the management of waste becoming big business. It is estimated that the waste management sector is worth £7.5 billion to the UK economy according to a Department for Business Innovation and Skills report published in 2011.

In 2010, over 140,000 people worked directly in the waste management industry. By 2020 this is set to increase to over 190,000 people handling and recycling waste. The bigger the industry gets, the higher the risks.

Spills are more common than you might think

Companies involved in waste activities caused 101 serious pollution incidents in 2011, 42% of all incidents were from sites regulated by the Environment Agency.

Even though there was a slight decrease in the number of incidents, the waste management sector is growing rapidly with over 190,000 people expected to work in the sector by 2020. The bigger the industry gets, the greater the potential for risks and increased accidents.

Spills are costly

The EA estimates that a pollution incident costs an average of £30,000 for businesses in fines, clean-up charges and production losses.

Action is needed

Spills from waste are one by-product which the EA and BSIF argue can be prevented, and spill containment and removal by waste operators can be improved. This research project shows how the industry currently deals with spills and how operators might learn from each other to implement best practice.

2. Project Objectives

- To identify the key spill prevention issues within the waste management industry.
- To understand best practice and identify ways to overcome barriers to best practice relevant to the waste management industry in order to help reduce spill risks.

"We can't afford not to operate to best practice."

"We're at the mercy of what the customer sends us."

3. Methodology

Overall, 23 industry figures participated in this exercise either via individual interviews or via one of the three focus groups. The individual interviews lasted between 30 and 75 minutes and the focus groups lasted 2 hours.

The 23 participants all fall into one of two categories: The majority work for a waste management organisation and a small number work for companies that supply spill containment products or services. 20 of the respondents fall into the former category and three fall into the latter.

Amongst the 20, three work for local authorities and the remainder work for private companies. All of those working for waste management organisations have responsibility for environment management, with many also having responsibility for quality and health and safety. Other responsibilities include general management, emergency planning and fire risk management.

4. Main Findings

4.1 Common Spills Hazards and Risks

Oil/Diesel

It was widely reported by most participants that oil and diesel present the highest spill risk to most organisations in this sector. Most organisations have bulk fuel storage on site. This is used either for fuelling vehicles or for equipment such as boilers.

Another relatively common cause of spills is the breaking of hydraulic hoses on lorries. This often happens away from site and can lead to a spill of up to 100 litres of hydraulic fluid.

Leachate

For those operating landfill sites, leachate is an ever-present hazard, albeit one that, on a well-managed site, is generally contained. However, leachate can be a serious pollution hazard where poor management practices are used. There is a small risk of leachate from domestic waste during kerbside collections but this is not considered particularly significant.

Chemicals

Many operators have to deal with some chemical waste, although this is frequently in small quantities and does not present a major spill risk. This could include battery acid, paints and aerosols.

Those dealing specifically in hazardous waste will, however, be dealing with much larger volumes of a range of chemicals or waste oils, where there is greater risk of a significant spill.

Fire Water Run off

Water used to put out fires is a potential hazard for some organisations as it carries waste and pollutants with it. On some sites, such as landfills, this is easily contained but on others this can go directly into the drains and become a problem.

Other

Several respondents pointed out that there are situations over which they have limited control where spills can occur. These include:

- When waste is delivered in unsafe or unsuitable containers. Because of their duty of care, they cannot turn the waste away as this may create a risk on the highway. It is therefore deemed better to attempt to contain it on the site.
- Vandalism, when people break into a site with the intention either of causing damage or stealing. Fuel is often a target for thieves.

EA Comment: **Whilst vandalism can be difficult to control, the site operator has a responsibility to ensure the risk is minimised. The operator can still be liable for any environmental damage caused and may have to pay the costs to rectify the damage. It is therefore important that sites are secure.**

4.2 Prevention and Containment Measures Employed

Participants were asked about the measures they currently employ to prevent and contain spills. These generally fall into two categories; a management system and control measures. These are detailed below.

4.2.1 Management Systems

Many of the research participants have an environmental management system that is certified to ISO 14001 or is based on this standard. This is seen as an indication of best practice and an organisation's commitment to the environment.

The benefit of such a management system is that it forces the organisation to look at all aspects of its environmental management and to constantly monitor its environmental performance. This means that there is a drive towards continuous improvement.

The management system helps to ensure that risk assessments are carried out on all processes in a systematic way, that the necessary policies and procedures are in place, that appropriate training is provided and that relevant checks, in the form of inspections, monitoring and audits, are carried out, and that all incidents are fully investigated. It also ensures that roles and responsibilities are clearly defined.

Essentially, operating a management system based on an approved scheme such as EU Eco Management and Audit Scheme (EMAS) or ISO14001 helps to provide a structure to an organisation's environmental management.

It is worth noting that many participants also have health and safety management systems certified to OHSAS 18001 and quality management systems certified to ISO 9001.

EA Comment: **Site Operators are not required to be certified to a standard such as ISO14001. The EA however encourages operators to use recognised standards to manage their sites. Sites with an environmental permit must have a written management system in place and operators or site managers should be able to demonstrate technical competence by complying with an approved scheme. Details of what you need to do can be found at: www.environment-agency.gov.uk/business/sectors/astemanagement.aspx**

Risk Assessment

Risk assessment is a fundamental part of managing environmental risks. As has already been mentioned, participants stress that a risk assessment should be carried out on all processes in order to try and forecast what could happen. This should then lead into a series of procedures and checklists to manage the risks being identified.

In the waste management industry, a key issue is that companies are often working on or visiting customer sites. In some cases, this can be thousands of different sites. Of course, there is still a risk of spills on these sites during loading and unloading or from the vehicles themselves but in this situation it may be impractical to carry out an individual risk assessment for every single site. However, some participants have developed generic risk assessments that highlight the major risks likely to be encountered as well as procedures to deal with these.

BSIF Comment: **Risk assessments are not difficult, and experience will enable companies to assess the risk they face and put in appropriate prevention measures. If you feel you do not have the expertise, bringing in a specialist consultant may help and assist you to do your own assessments for the future. However, it is essential that all situations are assessed to understand the spill risks and decide what sensible measures should be employed to prevent them.**

Procedures

Procedures for managing spill risks should result from the risk assessments and be set out for every process. Some examples of specific procedures put in place include:

- Having all hazardous waste deliveries to site booked in advance so that the site knows what it will be receiving.
- Appropriate techniques, training and equipment to prevent spills whilst loading and unloading vehicles.
- Satisfactorily storing hazardous materials, in such a way that they are safe, away from possible damage, in containers that are suitable and regularly checked and protected with bunds or other secondary containment devices.
- How to handle unsafe containers.
- How to clean up or contain spills, including handling a major emergency situation.
- Appropriate reporting of spills and a system that reviews the reports in order to put in place improved practice.
- The tendering process when contracting out any aspect of waste management or disposal.
- Ensuring the drains system either has valve 'shut-off' systems or that staff know how to close the drains to prevent leakage into the public drainage system.
- Refuelling vehicles is often highlighted as a high risk pollution point. Ensure appropriate facilities and training are in place to prevent spills and contain them when they happen and ensure that staff don't leave vehicles unattended during refuelling.

"We've got to be happy that the people operating our sites are competent."

"If something unexpected does happen and you've got a plan to deal with it, it does make life so much easier."

Inspections

Regular inspections are considered crucial in managing spill risks. Research participants stressed the need to have plans for the inspection of plant and infrastructure. These inspections should range from frequent visual checks to less frequent comprehensive inspections.

Many participants report that daily inspections are carried out, on each site, of high risk items such as storage tanks to check for damage and signs of wear. Bunds, smaller storage containers and general housekeeping are often checked on a daily or weekly basis. These are visual checks and the results are recorded.

More extensive inspection, such as checking the inside of large storage tanks, which involves emptying the tank and examining the interior, may be carried out less regularly, but nevertheless is vital in a comprehensive pollution prevention plan.

Vehicles tend to be inspected on a six weekly basis as a condition of the operator's permit.

Several participants also carry out checks and inspections of customer sites on which they have to work and of contractor-operated sites.

On a number of sites, random checks are also carried out to ensure that the inspections have taken place. This ensures that employees are not just ticking items off a checklist without actually carrying out the inspection.

Several people pointed out that the inspections have to be backed up with action, and that the inspections only have value if the findings are acted on and the necessary maintenance and repairs are carried out promptly.

> *"There are only one or two tanks on each site so it's not a major undertaking."*

> *"We want to check that pallets aren't overhanging, that drums aren't being held on by shrink wrap, that there isn't debris in the flammable storage area."*

Training

Everyone is agreed that training plays a crucial role in spill prevention and containment. This usually begins with environmental awareness training which can cover inspections, first response to spills, notification of spills, storage requirements, spill kit use and disposal of hazardous waste. This is then supported by regular toolbox talks.

Many provide practical spill training. This can be as simple as tipping over a bucket of coloured water and practising containing the spill and cleaning it up. Where hazardous waste is involved, specific training in responding to these spills and their containment / clean-up is essential. Particularly with hazardous waste, the safety and protection of the individual undertaking the clean-up is essential.

BSIF Comment: **Remember that the risk assessment should also result in specifying the correct PPE to be worn when dealing with a spill, and that personnel will require training in its use.**

Some people admitted, however, that they could do more on the training front and cannot be sure that everyone on site knows how to use the spill kits.

It was agreed this leads to poor spill containment and risks both serious damage to the environment and the staff dealing with it.

Some larger organisations carry out major emergency response drills periodically, and those whose business involves transporting hazardous waste will provide additional training to their drivers on how to respond to a spill. The latter is part of the requirements of the ADR regulations which relate to the carriage of dangerous goods by road. Employees need to understand when they should try to contain a spill and when they should leave it to the emergency services to deal with.

The importance of refresher training was stressed. This is often prompted by the results of an inspection or incident but should be done as part of scheduled training

"Our only practical training is when a spill actually happens."

Monitoring and Auditing

Monitoring and keeping records is vital in helping to provide an overview of how well spill risks are being managed. As well as the monitoring inspections and training, many participants report that they record all spills and some also record near misses. This allows them to analyse the causes of spills and near misses and to put in place necessary improvements.

A number of respondents indicated they monitor other environmental measures such as leachate levels and water discharge levels so that they can take action well before any serious problems develop.

Those who are ISO 14001 certified carry out internal audits to ensure that policies and procedures are being followed. All of these have to be audited by an external body. These audits provide another overview of the system and identify any areas for improvement.

Incident Investigation

For larger multi-site companies in particular, spills, albeit small ones, can happen quite frequently. In order to reduce these, all incidents are investigated in order to learn as much as possible about the circumstances and the causes. Action is then taken to avoid the same situation recurring. Some examples of where changes have been put in place as a result of an incident investigation include:

- Altering vehicular access after a tanker was punctured by a barrier when turning into a bay too sharply.
- Changing a procedure and re-training, after a pallet collapsed causing a chemical spill, so that the pallet as well as the container is inspected before unloading.
- Introducing spill kits into all vehicles after a spill on a customer's site.

"Spills for us are a daily occurrence across our sites."

4.2.2 Control Measures

Design

An important factor in the prevention of spills is the design of the site and equipment. It is acknowledged that it is much easier to design prevention measures into a new site or a site that is being refurbished than it is to introduce them into an existing site which may be in a less than ideal location and may have infrastructure restrictions. However, it was agreed that this should not be used as an excuse. On these type of sites, it is even more critical that strict measures are in place to prevent spills and adequate systems are available to contain and clean up spills should they occur.

Some examples of control measures that can be designed into a site include:

- Sealed drainage systems.
- Internal floors slopping to the centre to a sealed drainage system.
- Positioning new tanks as far as possible from water courses.
- Having all storage above ground.
- Covered storage area.
- Keeping the waste reception area separate from the rest of the site.
- Strengthened drainage pipes that have less risk of breaking.
- Having the entire site bunded to contain fire water run off.
- Keeping traffic routes away from storage tanks.

Some of these could be also introduced into an existing site depending on the individual site infrastructure.

"You can see what you're looking at if it's above ground."

Storage

Storage is a key issue for all. As oil and fuel are high hazard substances, the storage of these is taken very seriously. It may be a legal requirement to have secondary containment, double-skinned tanks are preferred by most and the tanks are often kept in a bunded area. The same applies to those storing large quantities of chemicals. Some tanks have safety cut-outs to stop them being overfilled and it was agreed they should be lockable to deter thieves.

Those handling larger quantities of chemicals keep them stored separately so that in the event of a spill they cannot come into contact and react with each other. Those using chemicals in materials processing say that they try to keep as small a quantity as possible on site.

Those handling smaller quantities of hazardous liquids, such as paints or aerosols, say that these are kept in smaller containers that can be sealed and are kept on spill pallets or drum trays. Others report that all hazardous waste is containerised before being transported, keeping the risk of a spill very low.

"I can't remember it ever happening [with containerised waste]."

"Storage is regulated, so you have to do it right."

Drainage Systems

All respondents to the research who operate hazardous waste sites say they have sealed drainage systems. Frequently, liquid as it is collected, is immediately tested and if necessary, treated or where the site is unable to handle the product, tankered away. On sites dealing mainly with chemicals, they may have several separate drainage systems to keep the different chemicals from mixing in the event of a spill. These systems have regular checks and maintenance carried out on them. Hydrostatic tests are used by some to ensure there are no leaks while others fill the system and then empty it, measuring the quantity of liquid to ensure there is no loss. Some occasionally do CCTV surveys of their drainage systems.

Many sites have also fitted interceptors to skim off oil. The interceptors are periodically cleaned. It is important to note that interceptors are only effective for oils and fuels. The presence of detergents will stop them working. They do not help to deal with liquids that mix with water e.g. chemicals. It is essential that interceptors are regularly cleaned and maintained to keep them working properly.

Although the majority of participants say that they have drainage plans for their sites, not all are colour-coded (for surface water, foul water or combined) and not all have the direction of flow marked on the drain covers.

EA Comment: **Control of drains emptying into the public system is essential. Good plans, flow charts and on-site marking make for easier control. The ideal is to have the drains sealed (often by valves) in the event of a leak. If valves are not available then bungs should be positioned to prevent leakage. Pre-planning in this area is a must.**

Spill Kits

Despite best practice, some spills seem to be unavoidable so spill kits are indispensable. These tend to contain socks or booms, spill granules or absorbent pads and disposal bags. On-site spill kits tend to be larger and are stored in special wheelie bins and portable kits. Those for use on vehicles are often smaller and, therefore, require careful training in their use to maximise their effectiveness.

Participants stress the importance of having the right kit to deal with the spill type and the right sized kit to deal with the scale of the potential spill. There does seem, however, to be something of an issue with the portable spill kits used on vehicles.

As has already been mentioned, training is crucial in ensuring that spill kits are used effectively.

Personal safety of the spill responder is paramount. Employees must be fully aware of the hazards they may be facing and the appropriate way to protect themselves. Any Personal Protective Equipment (PPE) they may need to use should be immediately available (perhaps stored with the spill kit) and they should be fully trained in its correct use. Employees should also understand when it may be necessary for the emergency services to take control of spill containment and removal.

"It just never seems to be enough when a major hose bursts."

4.3 Implications of Not Following Best Practice

Participants were asked to consider the implications for an organisation of not following best practice in spill prevention and containment.

Participants felt that, by not following best practice, an organisation is more likely to have a spill.

Spills are costly and can lead to prosecutions, substantial fines and even the possibility of a prison sentence. Spills can also result in more frequent inspections from the EA and, where applicable, the possible loss of the operator's ISO 14001 certification.

They key consequence of all this is likely to be loss of reputation which could lead to loss of work and becoming ineligible to bid for certain contracts, particularly with public sector organisations. This could then lead to loss of profit and, in extreme circumstances, business closure.

In addition to this, the organisation is likely to achieve a worse Operational Risk Assessment (Opra) score which will lead to an increase in the subsistence fees paid to the EA.

EA Comment: **The general public are becoming increasingly aware of the impact of pollution on the environment and are less forgiving of companies that cause environmental damage. No business wants to lose customers and this is especially true during a recession. It therefore makes economic sense to be environmentally friendly.**

BSIF Comment: **Research into the effects of a major pollution spill has indicated that a high proportion of companies never really recover from the after effects of an incident. The financial and time impacts of dealing with a spill are severely under-estimated and many companies finally cease trading due to the costs and management time consumption a major spill creates. Pre-planning is as essential in environmental protection as it is in all other areas of the business which could impact on its financial health.**

"Sooner or later you'll trip up."

4.4 Key Elements of Best Practice

Participants were asked to consider the key elements that would differentiate an organisation that has adopted best practice from one that is just legally compliant.

4.4.1 Culture

The main difference that participants mentioned is the culture of the organisation. This comprises a number of factors:

- A desire by the organisation to go beyond legal compliance.
- A focus on prevention rather than just containment.
- Making changes proactively rather than just when required by the EA.
- Transparent reporting of incidents.
- Striving for continuous improvement.
- Everyone in the organisation taking ownership of the issue.
- Good employee engagement, including listening to the employees and their suggestions for improvement.
- Good leadership from the top of the organisation
- Good appreciation across the organisation of the short and long term consequences of a spill.
- A willingness to keep neighbours and the general public informed of the organisation's activities.

It was pointed out that such a culture can be obvious, not just in environmental management, but in all aspects of an organisation's activities. For examples, sites that are well-presented and tidy and who have a pleasant, efficient receptionist are likely to be managing other aspects of their business to best practice standards.

"Getting them to feel like they have an investment in it."

"It's very easy for the guy at the top to kill it."

4.4.2 Management Systems

An environmental management system, the highest rated of which are ISO14001 and EMAS is a vital element of best practice in spill prevention. Ideally, an organisation will be certified to a recognised standard but, if not, should have a management system that is based on similar principles.

The implications of having such a system are:

- It makes you look at all aspects of your environmental management.
- It shows that you have achieved a minimum standard.
- Accredited environmental management systems (EMS) are voluntary so it indicates a willingness to go beyond compliance.
- It means you have a structured process for monitoring and checking.
- You are required to maintain standards in order to retain your chosen certification.

If you have an environmental permit from the Environment Agency, you're required to have a management system to enable you to comply with your permit conditions.

It is also worth noting that many companies require their suppliers to have a recognised Environment Management System.

"If you're doing it right, then everything is planned and structured for you, each week, each month, each year."

"It shows you've attained it. This tells people you've put the procedures in place."

4.4.3 Design

In line with their view that an organisation operating to best practice will take a proactive approach to spill prevention, several participants felt that such an organisation will seek to design prevention measures into its infrastructure and processes wherever possible.

These measures can include:

- Introducing roofed storage areas.
- New drainage systems.
- Separate storage areas for different substances.
- Selecting the right plant and equipment.

It is acknowledged, however, that it is not always possible to make design changes and therefore, changes in working practices or specialist equipment may be required to overcome the infrastructure deficiencies.

4.4.4 Procedures

A number of participants pointed out that a company operating to best practice will have extensive procedures in place but, importantly, these will be easy to understand, often generated as checklists, and will have been communicated throughout the organisation.

4.4.5 Inspections

As part of the management system, a best practice organisation will be carrying out regular inspections of all plant and infrastructure. These inspections are likely to be much more frequent than those carried out by a company not following best practice. These should also be recorded although this can be in a very simple paper format.

"It probably doesn't cost much more."

4.4.6 Training

An organisation operating to best practice will invest in training.

It was suggested that practical exercises in spill containment also form part of best practice.

Training staff is an essential element of any spill protection programme. Comprehensive and practical training will ensure the staff know how to prevent spills, what actions to take should a spill occur and how to protect themselves. Regular reviews and re-training will ensure staff competence and practical demonstrations on spill response will ensure the best possible actions are implemented immediately should a spill occur.

4.4.7 Monitoring and Review

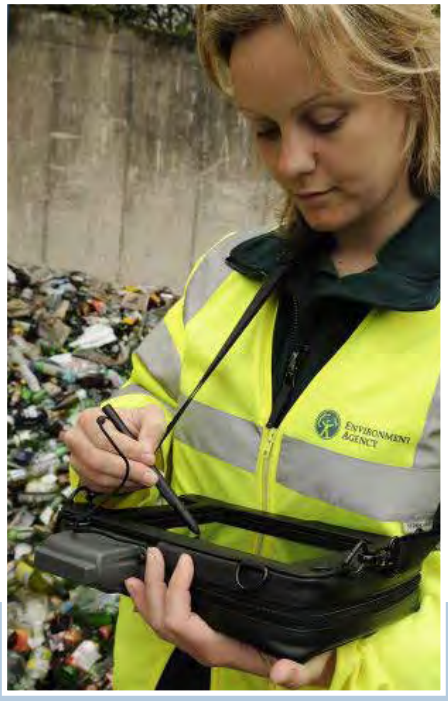
Monitoring of incidents and near misses can differentiate a best practice company from a solely legally compliant one.

One participant feels that true best practice is to allow employees to report spills and near misses anonymously as this avoids any allocation of blame and ensures that the organisation has full knowledge of all potential incidents.

This type of monitoring allows the organisation to determine where to focus its attentions and its resources.

It is also pointed out that an organisation operating to best practice will carry out audits and checks on its contractors.

BSIF Comment: **Monitoring & review are essential elements of a successful spill prevention and control policy. Using the data to implement appropriate changes are the vital element. In our opinion, audits and checks on contractors are key to ensure the environmental security of your site. Contracts should have appropriate 'behaviour' clauses within them and these should be reinforced to contractor staff on your site. Any breach of these requirements should receive immediate corrective action to prevent further incidents.**



"If a company is willing to spend money, when they don't have to, on training, then they're probably doing things right in other areas."

4.4.8 Incident Investigation

A best practice organisation is considered to be one that investigates all spill incidents to understand the causes in order to make changes to reduce the risk of it happening again.

As well as debriefs after each investigation, it is important to communicate the findings of the investigation so that everyone in the organisation can learn from it.

4.4.9 Other

A number of other factors or issues were mentioned by participants as a part of best practice. These include:

- Knowledge of your drainage system and how to isolate it.
- Keeping the minimum amount needed on site of any hazardous chemicals.
- Substituting, whenever possible, a less harmful substance for a hazardous one.
- Ensuring that you have the right spill kit and the right sized spill kit and that they are well maintained.

"It always happens to someone else, doesn't it?"

4.5 Barriers to Best Practice

4.5.1 Cost

Not surprisingly, the main perceived barrier to best practice is cost. Sometimes sites have been inherited from another company and because the current incumbent may only be using the site for the life of a particular contract, it may not be seen as cost-effective to invest in infrastructure improvements. It was also noted that often contracts were won at keen prices leaving little available to enhance the environmental performance.

However, the wisdom of this was questioned. Most participants say that cost should not be a major issue and that the investment pays off.

BSIF Comment: **When analysing a contract, both the benefit and risk should be considered. A major pollution incident could have dramatic consequences. Proportionate precautions on an existing site do not necessarily mean a major infrastructure spend. Can the drains be sealed by other methods? Can hard standings be converted into spill containment areas etc.**

EA Comment: **The EA estimates that a pollution incident costs an average of £30,000 for businesses in fines, clean-up charges and production losses. Money can actually be saved by implementing best practice.**

"It's money well spent in the end."

4.5.2 Apathy

Several participants note that some people are generally apathetic about spills prevention and believe that they will never have a major spill.

This attitude is a barrier to best practice and will most likely lead to a serious spill with all of the consequences.

4.5.3 Lack of Knowledge

The importance of having someone with designated responsibility for environmental management and of that person receiving the right training was stressed by several people.

Lack of knowledge and lack of understanding of best practice is considered a barrier to implementing it particularly in smaller organisations that sometimes feel they cannot justify employing an environmental specialist.

BSIF Comment: **In some areas false economy can cost the company. Much of the information is available on-line and simple common sense procedures will often provide adequate protection.**

4.5.4 Lack of Time

Limited time is also considered a barrier to best practice. This is often due to a need to focus on day-to-day business activities rather than being able to think about and work on improvements for the future. Pressure to complete a project within a strict timetable can also lead to elements of best practice being ignored as they may take longer to achieve.

"Everyone knows [spill prevention] should happen but it's not in anyone's job description."

4.6 Ways to Encourage Best Practice

It was strongly suggested that encouragement should be given to organisations to adopt best practice in spill prevention and containment. The resultant benefits to the company are strong (but sometimes difficult to see up front) and the risks of poor practice high.

Most suggest a combination of incentives and penalties, or, as they put it, 'carrot' and 'stick'.

EA Comment: **Spills cause damage and cost money. It is in everyone's interest to prevent spills and where necessary contain them safely. The EA is fully committed to working in partnership with operators both large and SMEs to ensure they operate legally. EA officers can offer guidance and there is a wide range of useful information, advice and guidance on www.environment-agency.gov.uk/ppg to help operators.**

4.6.1 Enforcement

Participants feel that there are some organisations that are never going to follow best practice and, indeed, are unlikely to willingly comply with legislation. For these, it is believed that enforcement action is the only option.Typical comments were:

- Q **"There is a group that's never ever going to do it unless they're forced to do it."**
- Q **"I would tell them how it should be done. I'd show them cases where it's gone wrong and tell them they could end up in prison or with a £100,000 fine and remediation costs."**
- Q **"They're the people who, if you give them six months to implement something, at seven months, they'll start thinking about it."**

It was suggested that poorly performing companies should be inspected more frequently and the better performing companies should be rewarded with fewer inspections. There is also a perception amongst this group that smaller companies are not as heavily penalised as larger companies.

EA Comment: **The EA already takes this approach as it's in the best interests of business and allows the agency to focus its resources where they are needed to best protect the environment.**

Some participants also feel that there should be more enforcement activity aimed at the waste producers rather than just at the waste management industry. Several had tales to tell of producers storing and transporting hazardous waste in unsafe containers.

BSIF Comment: Enforcement is always an option, but the majority of companies want to comply and avoid pollution incidents. Training, advice and mentoring are tools the industry could use. For those 'cowboys' who just aren't concerned about breaking the rules, enforcement may be the only route and the greater the certainty of it, the more these companies will change their ways.

4.6.2 Information and Training

Despite a desire to see more enforcement action against some operators, it is well acknowledged that there are many companies who would like to improve their environmental performance but who lack the necessary knowledge and expertise. Often, they also do not know where to go to for help and information.

They suggest that the EA could offer more guidance to businesses seeking help although it was pointed out that the inspectors are not sector specialists and may not always be able to offer the best advice.

Alternatively, there appears to be a need for some sort of signposting service that can direct people to relevant sources of help and advice. This could take a similar form to the Occupational Safety And Health Consultants Register, which includes consultants who fulfil certain criteria without recommending one ahead of another.

Free training, grants for training or cost-effective training were suggested by several people as a way of starting to create a better knowledge base for the company as well as creating a drive to improve. Seminars for managing directors, run by the Environment Agency, could also help to get buy-in from company owners.

"Most [smaller companies] will only understand the full impact when it actually happens and by then it's too late for them. They haven't got the learning process, due to their size, to see the risk."

Sharing information across the industry was also felt by some to be crucial in helping people to learn from others' mistakes and incidents. Smaller companies especially are likely to benefit because they will have fewer smaller spills of their own to learn from, whereas the larger organisations have many small spills and are able to make changes in response to them.

4.6.3 Business Benefits

Making the business case for best practice is felt to be a good way to encourage more people to start working towards improvements. Case studies showing the total cost of spills as well as examples of where investment has resulted in cost savings would be useful.

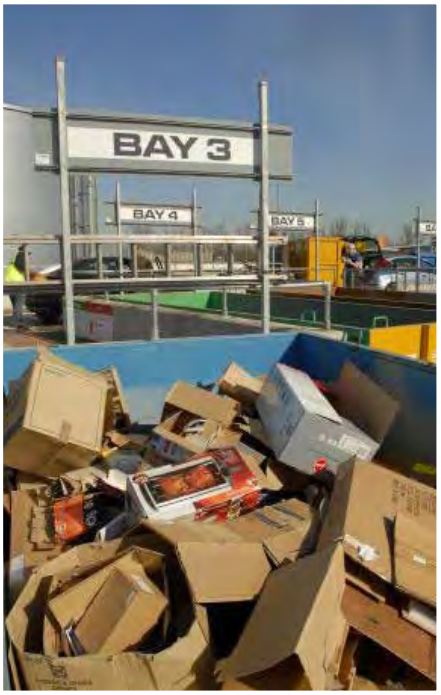
In addition to this, it should be pointed out that, by adopting best practice, they have the potential to increase business.

4.6.4 Rewards

It was suggested that companies could be incentivised to improve their environmental performance including their spill prevention and containment measures. At present, the permit system requires every permit holder to pay subsistence fees to the EA. These can reduce slightly if the organisation has no incidents and increase if the company does have incidents. It is suggested, however, that there could be greater reductions to encourage companies to strive for improvement.

It was suggested that the better performing companies could be subject to fewer EA inspections. This is another way to reduce the burden on companies.

EA Comment: **The EA actively encourages best practice by spending less time on sites that are performing well and more time on sites that are performing badly. It is in the best interest of waste operators to avoid spills and where they happen to contain them better as it means less visits from Environment Agency officers.**



"I'd point out that they've got more chance of winning more business."


Environment
Agency

4.6.5 Using the Influence of Larger Organisations

It is felt that larger organisations could exercise influence on their suppliers and contractors to encourage them to improve their environmental performance. This could involve:

- A rigorous tender process for contractors.
- Auditing disposal sites used.
- Setting standards for contractors to adhere to.

4.6.6 Environmental Certification

Companies should be encouraged to use a management system such as ISO 14001, EMAS or other approved scheme as a way of helping them to manage their spill risks and improve performance according to participants. This would give them a way of showing customers and the public that they are achieving certain standards.

However, it is acknowledged that some companies may not be able to afford the investment in an accredited scheme. It is, therefore, suggested that there should be an alternative form of certification offered by the EA. This could simply be a rating or star system based on the organisation's Opra score.

The organisation could then use this rating on their letterhead and website to show that they are meeting the required standards. As there is limited understanding of the permit system outside of the waste management industry, this could be a simple way of showing customers that they are operating to a good standard.

Although it is accepted that the EA could not issue an 'approved operator' list, it is thought that it could provide a list of operators and the standard they have achieved.

EA Comment: **Site Operators are not required to be ISO 14001 certified. The EA however encourages operators to use other recognised standards to manage their sites.**

"There's no reason the authorities couldn't come up with some sort of recognition; a badge, a certificate, something that could go on the company's letterhead."

4.7 Current Key Issues in Spill Prevention

There is a wide range of key issues within the waste management industry. Each requires a particular focus with no major issue topping the list. All require attention.

- Hydraulic fluid spills. One person felt that hose manufacturers need to work harder to develop new hoses that are not as vulnerable to decay.
- The classification of waste swept up from highways. One person is not convinced that road sweepings are always disposed of correctly. He has the same concerns about the contents of interceptors and Portaloos.
- Understanding the newfire water run off guidance.
- The containment of diesel spills in the rain and the issue of outdoor bunds filling with rainwater.
- A need to set standards for the inspection of and maintenance of large storage tanks.
- Ensuring that everyone handling the same type of hazardous substances is subject to the same regulation and control. This was mentioned with reference specifically to farmers, small garage workshops and car washes run in disused filling stations.
- Underground pipe work and tank monitoring.
- Education for customers and the general public about packaging and disposing of hazardous waste.
- Unregulated waste collectors, particularly of metals and oil.

EA Comment: **The issues highlighted by the industry are also of concern to the EA. Tackling illegal waste operators is a priority for the EA. The agency also is committed to providing better guidance on spill prevention and containment and this report is a step in the right direction.**

5. In Conclusion

The waste management industry works hard to manage all that is thrown at it. In the words of one operator:

"We're at the mercy of what the customer sends us."

But waste operators have legal obligations and preventing and containing spills is a priority. Therefore, ensuring best practice is critical. It is in everyone's interest to prevent spills and where necessary contain them safely. With this in mind the BSIF and EA have produced A Spill Prevention & Control Checklist for the Waste Management Industry, which is included in the report. The guide is designed as a checklist to help deal with spills. It looks at assessing the risk and provides simple questions as an aid to ensure your site and employees are well equipped to prevent spills in the first instance and handle them properly when they happen.

In making the report, the BSIF and EA welcomed and appreciated the honest input of those who gave of their time freely and made some very insightful comments on the issues of spills. The 'Best Practice in Spill Prevention in the Waste Management Industry' report is available free on www.environment-agency.co.uk and www.bsif.co.uk. 'Spill Prevention & Control Checklist for the Waste Management Industry' is included in the report.

Finally, in the words of one participant:

"You've got to learn from your mistakes. No one's perfect all the time."

It was acknowledged by all participants that no one operator is perfect but lessons can be learned from each other and the report and guide is an attempt at sharing experiences and encouraging best practice across the waste management industry as a whole.

"You've got to learn from your mistakes. No one's perfect all the time."

Acknowledgements

The Environment Agency (EA), British Safety Industry Federation (BSIF), Active Research and The McOnie Agency would like to thank the following for their contribution towards this report.

Ben Davies
Technical Manager
Augean Plc

Tricia Murray
Bucks Recyling
Building 214, Westcott Venture Park
Westcott HP18 0XB
Tel: 01296 651678
tricia@bucksrecycling.co.uk

Zarren Mokaddam
Bywaters Ltd

David Humphriss
Environmental Manager
Castle Environmental
enquiries@castle-environmental.co.uk

Mike Brodie
UK Technical Director
Chemstore
101 Wigmore Street, London W1U 1QU
Tel: 0800 028 2531
Mike.brodie@chemstore.co.uk
sales@chemstore.co.uk

Peter Clarricoats
Group Technical Manager
Cory Environmental
The Old Rectory, Mucking Wharf Road
Standford-le-Hope S17 0RN
Tel: 01375 654 200
Mob: 07753 581 066
pclarricoats@coryenvironmental.co.uk

Mick Schilling
EH&S Advisor
Coventry and Solihull Waste Disposal Company
Bar Road, Coventry CV3 4AN
Tel: 024 7650 7400
Mick.schilling@cswdc.co.uk

David Jarvis
SHEF Manager
ECO Plastics Ltd
Hemswell Business Park
Hemswell, Lincolnshire DN21 5TU
Tel: 01427 668635
Mob: 07590 885463
d.jarvis@ecoplasticsltd.com

Howard Jonas
Enviroco

Mike Claridge
Forth Systems

Miles Hillmann
Fosse Liquitrol

Kevin Doran
Group SHEQ Manager
Hadfield Wood Recyclers
Lumb Farm, Littlemoss
Droylsden, Manchester M43 7LB
Tel: 0161 3016542
Mob: 07545 203316
Fax: 0161 3705614
k.doran@hadfield.co.uk

Michelle Cotgreave
Risk & Emergency Planning Division
Halton Borough Council
Municipal Building, Kingsway
Widnes, Cheshire WA8 7QF
Tel: 0151 511 7918
Michelle.cotgreave@halton.gov.uk

Simon Walker
Environmental Quality and Improvement Principal Officer
Waste and Environmental Improvement
Halton Borough Council Communities
Directorate, Runcorn Town Hall
Heath Road, Runcorn WA7 5TD
Simon.walker@halton.gov.uk

Daryl Taylor
Hills Group

Ged Pearce
Environmental & Audit Manager
HW Martin Waste Ltd
Fordbridge Lane, Blackwell
Alfreton DE55 5JY
Tel: 01773 860600
Fax: 01773 520791
Mob: 07890 529 168
gpearce@hwmartin.com

Steve Hodges
Compliance & Outlet Manager
HW Martin Waste Ltd
Forbridge Lane, Blackwell
Alfreton, Derbyshire DE55 5JY
Tel: 01773 860600
Mob: 07792 256 563
shodges@hwmartin.com

Kelvin Sharpe
Senior Waste Officer,
Environment & Transport Dept.
Leicestershire County Council
County Hall, Glenfield
Leicester LE3 8RA
Kelvin.sharpe@leics.gov.uk

Martin Millward
OSS Environmental

Jamie Edmonds
Group Environmental Manager
May Gurney
Trowse, Norwich NR14 8SZ
Mob: 07740 394266
jedmonds@maygurney.co.uk

Lucille Stanley
Regional Environmental Advisor
Shanks Waste Management
Lucille.stanley@shanks.co.uk

Tim Compton
Veolia Environmental Services Plc

Jeff Henderson
Viridor

Active Research would also like to thank the BSIF and Fosse Liquitrol for the use of their premises for the focus groups.

Spills Containment & Control Group

A Spill Pallets, Storage & Prevention

B Spill Kits & Absorbents

C Bunded Liquid Storage

D Drain Protection

E Site Assessment & Training

F Waste Management

G Containment & Clean-up Equipment

Through the BSIF Trade Association, the Spills Containment & Control Group represents the leading organisations in the UK to advise, supply and implement successful systems to prevent, contain and clean up spills.

Company	Key Activities	Areas of Expertise (See key)
3M United Kingdom Plc 3M Centre Cain Road Bracknell Berkshire RG12 8HT **Tel** 01344 858000 **Contact** Mr Alan McArthur **Email** amcarthur1@mmm.com		
Chemstore 101 Wigmore Street London W1U 1QU **Tel** 0800 028 2531 **Contact** Mr Mike Brodie **Email** mike.brodie@chemstore.co.uk **Web** www.chemstore.co.uk	Chemstore continues to manufacture and develop market-leading products and offer services within the field of hazardous materials storage and handling. Solutions are designed to comply with the most stringent of legal, health & safety and corporate responsibilities of our customers, packaged to exceed all expectations for performance and customer service.	A, B, C, D, E, F, G
Clear Spill Limited 55 Spencer Street Oadby Leceistershire LE2 4DQ **Tel** 0116 271 9436 **Contact** Mr John Boulting **Email** sales@clearspill.com **Web** www.clearspill.com	Clear Spill Ltd is a manufacturer of a comprehensive range of absorbents for the oil, chemical and engineering industries. The product range includes a wide variety of socks, pads; cushions, booms; absorbent materials; spill pallets, drip trays and secondary containment. Bespoke products and kits are available on request.	A, B, C, D, E, G
Darcy Products Limited Brook House Larkfield Trading Estate New Hythe Lane Larkfield Kent ME20 6GN **Tel** 01622 715 100 **Fax** 01622 793996 **Contact** Mr Richard Proctor **Email** enqs@darcy.co.uk **Web** www.darcy.co.uk	**Specialists in the provision of cost effective Oil & Chemical Pollution Control equipment and services to all industries including the waste management and construction sectors.** • 24/7 Emergency Spill Response & Product Supply • Free Site Risk Assessments • BSIF Accredited Spill Response Training • Drain closure devices Draintector® & Envirovalve® containing spills and firewater run off • Assist achieving and maintaining ISO 14001 • IEMA Environmental Consultants	A, B, C, D, E, F, G
Empteezy Limited 4 Muir Road Houstoun Industrial Estate Livingston West Lothian EH54 5DR **Tel** 01506 430309 **Contact** Mr Andrew Lawrence **Email** advice@empteezy.co.uk **Web** www.empteezy.co.uk	Empteezy is ISO9001, 14001 & 18001 accredited UK manufacturer in the spill containment industry whose staff are available to give advice on products and application by email, over the phone or in person at your facility. Our site assessments are confidential, without any onus to buy and completely free of charge.	A, B, C, D, E, G

Fosse Liquitrol Limited Whetstone Magna Lutterworth Road Whetstone Leicestershire LE8 6NB **Tel** 0870 2247841 **Contact** Mr Miles Hillmann **Email** milesh@fosse.co.uk **Web** www.fosseliquitrol.com	Fosse Liquitrol supplies a wide range of spill response and containment products and provides a comprehensive range of services to assist companies prevent and cope with liquid spills. Both industrial and marine products are supplied to clients in the UK, Europe, Africa and the Middle East.	
Jonesco [Preston] Limited Pittman Way Fulwood Preston Lancashire PR2 9ZD **Tel** 01772 704 488 **Contact** Mr Garry Baines **Email** gbaines@jonesco-plastics.com **Web** www.jonesco-plastics.com	Based in the UK, Jonesco is a prominent manufacturer of spill containment products which have been designed and tested to withstand the most challenging of industrial environments. Made from 100% recyclable Polyethylene, the range offers increased durability and chemical resistance. Easily transportable, the ergonomic design allows for user-friendly handling.	A, B, C
JSP Limited Worsham Mill Minster Lovell Oxfordshire OX29 0TA **Tel** 01993 824 000 **Contact** Mr James Johnstone **Email** james.johnstone@jsp.co.uk **Web** www.jsp.co.uk	JSP is Europe's leading independent manufacturer of "above the neck" Personal Protective Equipment, Road Safety and Spill Protection. Based in Oxfordshire and manufacturing on three continents JSP exports to over 90 countries. An estimated 40 million people worldwide use JSP products daily to protect themselves at home and at work.	A, B, D, G
Oil-Dri [UK] Limited Bannisters Row Wisbech Cambridgeshire PE13 3HZ **Tel** 01945 581 244 **Contact** Mr Ian Rawlins **Email** ianrawlins@oil-dri.co.uk **Web** www.oil-dri.co.uk	For over 70 years Oil-Dri has lead the way in spill containment and clean up. We mine our own clay used in traditional floor granules and our range of polypropylene sorbents and containment furniture make us a one stop shop for all your spill prevention and containment requirements. Get it right with Oil-Dri.	A, B, E, G
PHS Spillcontrol Claymore Tame Valley Industrial Estate Tamworth Staffordshire B77 5DQ **Tel** 08701 620130 **Contact** Ms Nicola Parkerpayne **Email** sales@phsspillcontrol.co.uk **Web** www.phsspillcontrol.co.uk	PHS Spillcontrol are experts in the field of liquid spill containment, control and clean up products. Our products cover a comprehensive range of spill prevention, liquid storage, handling, and sorbent clean up solutions. We offer site surveys, risk assessments and full training in best practise first responder spill control procedures.	A, B, C, D, E, G
Romold Ltd 4 Maxwell Square Brucefield Industry Park, Livingston West Lothian EH54 9BL **Tel** 01506 409973 **Contact** Mr Tony O'Riordan **Email** tony@romold.co.uk **Web** www.romold.co.uk	Romold is the UK's leading manufacturer of rotationally moulded polyethylene spill containment and associated products. Sold through specialist distributors worldwide to enable businesses and organisations to satisfy and comply with Health & Safety, Environmental and Duty of Care requirements and legislations when using and storing oils and chemicals.	A, C, G
Safety Unlimited Unit 2 40 Comet Way East Woodbury Lane Southend Essex SS2 6XW **Tel** 01702 527193 **Contact** Mr Gary A Wiley **Email** gary.wiley@safetyunlimited.co.uk	Safety Unlimited has been manufacturing and distributing products for the safe handling, storage and containment of highly flammable/ hazardous liquids for nearly 40 years. Their extensive range includes safety cabinets, spill pallets, IBC/drum storage units, and Fire Rated Safety Stores. Also available are a range spill response kits, drain protection products and spill response training.	A, B, C, D, E, F, G

British Safety Industry Federation
BSIF House, 3 Austins Mews
Hemel Hempstead
Herts HP1 3AF
Tel: +44 (0)1442 248744
enquiries@bsif.co.uk
www.bsif.co.uk

Environment Agency
National Customer Contact Centre
PO Box 544
Rotherham S60 1BY
Tel: 03708 506 506 (Mon-Fri, 8am - 6pm)
enquiries@environment-agency.gov.uk
www.environment-agency.gov.uk

Research carried out by:

Report produced by:

The McOnie Agency
info@mconieagency.com
www.mconieagency.com