



Appendix 5 - Attachment F

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EP-13	Bulk Fuel & Oil Storage			
Note: Always print or copy to double-sided pages	PROC. NO: EP-13	REV: 01	DATE: 18.05.2009	PAGE: 1/5

Purpose:	To provide guidance on the management and storage of fuels, to minimise the potential for the release of fuels to the surrounding environment in the event of a spill.
Scope:	All sites and activities requiring fuel storage.
Responsibility:	Contract/Project Manager
<p>Regulatory Requirements:</p> <ul style="list-style-type: none"> • Air Pollution Act, 1987 • Local Government (Water Pollution) Act, 1977-1990 • Environmental Protection Agency Act, 1992 (Control of Volatile Organic Compound Emissions resulting from Petrol Storage and Distribution) Regulations, 1997 • Water Quality (Dangerous Substances) Regulations, 2001 • Protection of Groundwater Regs 1999 • EPA Acts 1992-2003 	
<p>Management Requirement:</p> <p>Spills of fuels or oils from fixed or mobile storage tanks on construction sites can result in significant contamination of soil, surface waters and groundwater beneath and around the site. Project planning must take account of the need to protect fuel storage from damage, both accidental and malicious, so as to reduce the likelihood of spills, and to contain and limit the impact of any spills that may occur.</p> <p>For assistance in implementing any control measures or further information contact the SHE Department.</p>	
Management Procedure:	
<ol style="list-style-type: none"> 1. Elimination <ul style="list-style-type: none"> • Where practical, do not store fuels or oils on site. • Where practical, do not refuel from mobile tanks on site. 2. Location <ul style="list-style-type: none"> • Tanks must be positioned such that easy access is maintained for fuel delivery vehicles and the vehicles / plant / equipment that will be refuelled from the tanks. • Position tanks so as to minimise the risk of damage by impact from plant or vehicles. Where this is not possible adequate barriers and / or high visibility fencing must be installed around the tanks to prevent impact. • Do not position tanks in significant risk locations – ie within 10m of a watercourse or 50m of a well or borehole, or close to a protected habitat area or cultural heritage artefact. • For security reasons tanks should always be located within the works compound and well away from boundary fences. 3. Containment <ul style="list-style-type: none"> • The surface where deliveries are made and fuel or oil is dispensed must be impermeable and isolated from any surface water drainage system. The drainage catchment of the refuelling area should be served by an oil interceptor where possible. If not possible, additional containment measures to be adopted in line with CIRIA documents. • All tanks and ancillary equipment must be located within an impermeable secondary containment system such as a bund. Details are given below. 	

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- Note: Double skinned tanks are NOT an adequate substitute for properly bunded tanks as the fixtures and fittings are usually outside the protection of the double skin.

4. Security

- All valves on fixed or mobile tanks should be securely locked when not in use, to prevent vandalism and unauthorised use and/or valves being left open.

5. Inspection & Emergency Response

- Regular inspection of tanks and bunds must be carried out to check for leaks and ensure other material is not stored within the bunded area, thus reducing capacity. This may be carried out as part of the Environmental Inspection (refer to Procedure EP-05).
- Emergency spill kits must be available on site at all times, with adequate stock of absorbent materials, and staff trained in their correct use and disposal.


6. A contingency plan must be prepared to deal with any spill (refer to EP-15 Containing & Cleaning Up Spills).

Temporary Storage (Mobile Browsers)

- Portable fuel tanks must be parked in a secure, bunded and paved area (where possible), and must have spill kits with them at all times
- Operators of mobile fuel tanks must have appropriate training both in delivery of fuels and spill control.
- Any flexible pipes and taps must be fitted with a lever valve where they leave the container and be shut off when not in use.
- Flexible delivery pipes must be fitted with manually operated pumps or a valve at the delivery end that closes automatically when not in use.
- The pump must have a lever valve for shutting off when not in use.
- Refuelling must not take place in significant risk locations – i.e. within 10m of a watercourse or 50m of a well or borehole, or close to a protected habitat area or cultural heritage artefact – unless stringent controls are in place to avoid drips and spills. Such controls must include as a minimum the use of drip trays with absorbent materials.

Static Storage

- Static fuel tanks must be located in a secure, bunded and impermeable surfaced area where possible
- Bunds should be designed in accordance with CIRIA Report 163 (1997), 'The Construction of Bunds for Oil Storage Tanks', which incorporates BS 8007: 1987 'Code of Practice for Design of Concrete Structures for Retaining Aqueous Liquids'.
- As a minimum, storage must be bunded to a volume not less than 110% of the tanks maximum capacity. If more than one container is stored the system must be able to contain 110% of the largest tank or drum within the bunded area or 25% of the total tank capacity within the bund, whichever is greater. A calculation method is contained in the attached checklist.
- The design of fuel/oil storage areas should ensure that all valves and pipework are contained within the bunded area when not in use.
- The bunded area must be impermeable to oil and water with no direct outlet connecting the bund to any drain, sewer or watercourse, or discharging onto a yard or unmade ground.
- The tank and bund should also be covered to prevent ingress of rainwater, which, if it accumulates, would reduce the capacity of the bund to contain tank losses and also complicate the possible recovery of any losses from the bund.

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References:

CIRIA Report 163 (1997) 'The Construction of Bunds for Oil Storage Tanks'
 BS 8007: 1987 'Code of Practice for Design of Concrete Structures for Retaining Aqueous Liquids'
 DEFRA (2001) 'Guidance Note for the Control of Pollution (Oil Storage) (England) Regulations 2001'
 Enterprise Ireland Best Practice Guide BPGCS005 Oil Storage Guidelines
 EPA (2003) 'Guidance Note on Storage & Transfer of Materials for Scheduled Activities'
 UK Environment Agency PPG02 (2004) 'Pollution Prevention Guidelines for Above Ground Oil Storage Tanks'
 Irish Statute Book – www.irishstatutebook.ie

Attachments:

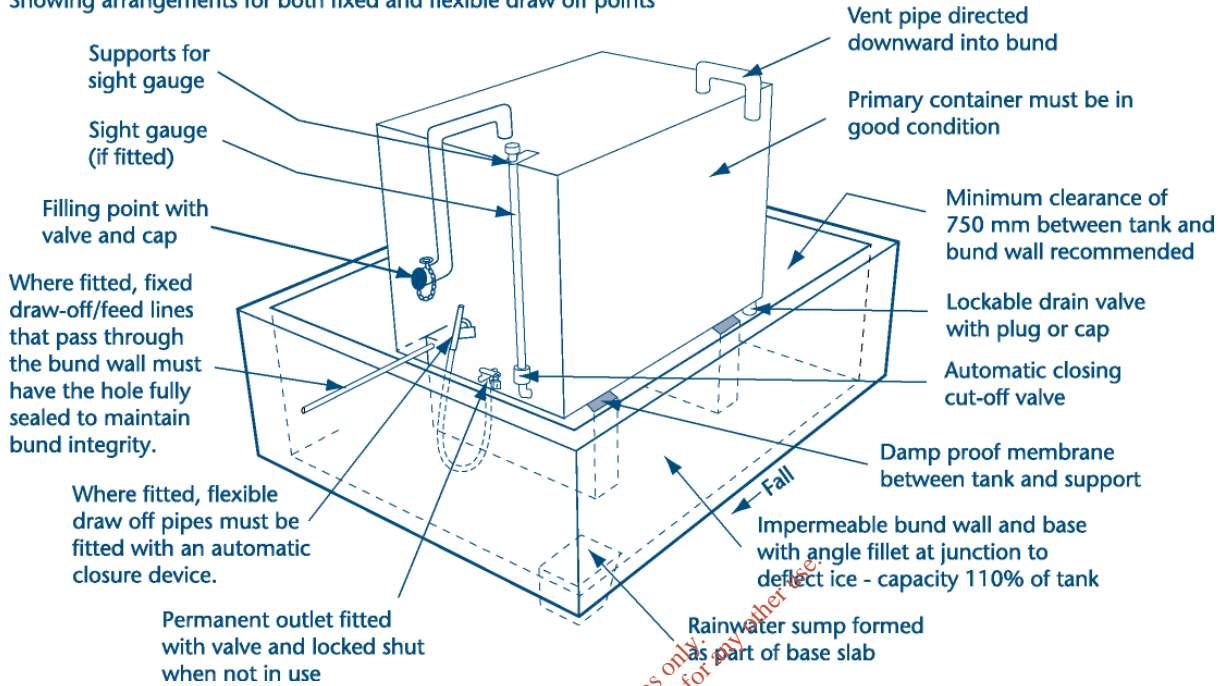
Details of secondary containment structure and calculation method to determine capacity, from PPG02.

Photo 1: Typical bunded and covered storage tank as available from the Plant Department



Attachment 1: Secondary containment structure and calculation method to determine capacity, from PPG02.

Showing arrangements for both fixed and flexible draw off points



Calculation of capacity for existing secondary containment systems

The capacity of a tank located within an open containment system can be calculated by making the measurements shown in the table below. If the tank supports take up significant space, the calculation must take this into account.


Where the tank is enclosed within a proprietary system, you will have to refer to the manufacturer for this information.

Calculation	Result	
Maximum capacity of primary tank(s) If unknown, use tank length x width x depth in metres and multiply by 1000 to convert to litres.	..... litres	A
Containment capacity = length x width x depth of secondary container in metres	..... m ³	
Then multiply by 1000 to convert to litres	..... litres	B
Volume lost due to tank supports (if significant) in cubic metres	..... m ³	
Then multiply by 1000 to convert to litres	..... litres	C
Actual containment capacity = B – C (C = 0 if tank supports do not occupy a significant volume.)	..... litres	D
Minimum containment capacity (110%) = (110/100) x A	..... litres	E


If D is equal or greater than E, then the containment system volume is adequate

If D is less than E, then the containment system capacity is insufficient.

Note that for installations where the tank takes up a significant part of the bund, the capacity available in the event of overfilling may be inadequate. This will require consideration of delivery procedures and alarm systems if the risk is to be managed.

EP-14	Storage & Handling of Hazardous Substances			
Note: Always print or copy to double-sided pages	PROC. NO: EP-14	REV: 02	DATE: 16.04.2013	PAGE: 1/4

Purpose:	To provide guidance on the storage and handling of drums and containers of potentially polluting substances, and minimise the potential for their release to the surrounding environment.
Scope:	All sites and activities.
Responsibility:	Contract/Project Manager
Regulatory Requirements:	<ul style="list-style-type: none"> • Local Government (Water Pollution) Act, 1977 and Local Government (Water Pollution Amendment) Act, 1990 • Air Pollution Act, 1987 • Protection of the Groundwater Regs 1999 • Water Quality (Dangerous Substances) Regulations, 2001 • European Communities (Water Policy) Regulations, 2003 • EPA Acts 1992-2003
Management Requirement:	<p>The use of potentially polluting substances on construction sites poses a significant risk of contamination of soil, surface waters and groundwater beneath and around the site, via accidental leakage or spills. Such substances include fuels, oils & chemicals, which may be stored in containers ranging in capacity from a few litres to drums of 205 litres (45 gallons). Project planning must take account of the need to protect drums and containers from damage, both accidental and malicious, so as to reduce the likelihood of spills, and to contain and limit the impact of any spills.</p> <p>For handling and disposal of hazardous wastes refer to procedures EP-21</p> <p>For assistance in implementing any control measures or further information contact the Environmental Coordinator.</p>
Management Procedure:	<ol style="list-style-type: none"> 1. Health & Safety Requirements <ul style="list-style-type: none"> • Ensure that the storage and handling of any hazardous substances is in accordance with the appropriate legislation, guidelines and industry standard, and the Material Safety Data Sheet (MSDS) 2. Purchasing & Delivery <ul style="list-style-type: none"> • Where practical, do not store drums or containers on site. • When ordering chemicals always ensure that the least hazardous substance and the smallest amount / container size suitable for the purpose is requested. • Ensure there is adequate contained storage space available prior to delivery of chemicals. • Do not accept quantities of chemicals over the ordered amount, particularly if there is not adequate contained storage space. 3. Drums and Containers <ul style="list-style-type: none"> • Individual containers must be clearly labelled with the nature of their contents and the MSDS must be available to anyone using the substance. The MSDS must be provided by the supplier. • The primary storage container must be of sufficient strength and integrity to ensure that in normal circumstances it is unlikely to burst or leak. • Damaged or unsuitable containers should be immediately repaired or removed from circulation, with their contents transferred to another suitable container. 4. Designated Storage Areas & Lockable Chemical Stores <ul style="list-style-type: none"> • Drums and containers should be delivered, handled and stored in designated areas which are clearly signposted and located so as to minimise the risk of impact by plant or vehicles. Where this is not possible adequate barriers must be installed to prevent impact. • Do not locate storage areas in significant risk locations – ie within 10m of a watercourse or 50m of a well or borehole, or close to a protected habitat area or cultural heritage artefact. Never store hazardous

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substances next to the site boundary unless they are adequately protected to prevent vandalism.

- All drums and containers of hazardous substances must be kept in a lockable chemical store with built-in spill containment or otherwise secured in the designated storage area. Contact the plant department for specifications of different types of storage containers.
- The designated storage area must be bunded and impervious (eg lined with plastic or concreted) or otherwise have adequate secondary containment for the volume of hazardous substances stored (see below).
- Always check the MSDS to determine the requirements for storage of the substance and to ensure that it is safe to store different types of chemicals together. For example, flammable and oxidising substances should never be stored together.

5. Secondary Containment

Secondary containment can be provided by prefabricated steel or plastic systems, or an in-situ concrete system using kerbs, walls, ramps and sloped floors to provide containment. Details of the various storage options and prefabricated systems are provided in the attached table.

- As a minimum, the containment system must have sufficient capacity to contain 110% of the largest drum or container being stored or 25% of the total volume of the containers being stored, whichever is greater. For large external stores 25% containment capacity may result in low containment walls, which can be quickly overwhelmed by rainfall or firefighting agents. An additional 100mm freeboard is recommended.
- For an in-situ system the surface of the area must be impermeable and isolated from any surface water drainage system. The drainage catchment of the area should be served by an oil interceptor or sump.
- Where a drip tray is used it should be capable of containing 25% of the volume of the container.

6. Cleaning Out Bunds & Drip Trays

After rainfall containment areas may have to be pumped out to remove excess water. This must be done as soon as possible following the rainfall event to restore full capacity to the containment area. The water will almost certainly be contaminated due to leaks/drips/spills from the stored drums. The following options are available:


- Have the area pumped out by an appropriately licensed waste contractor and disposed of off-site (refer to EP-21 Handling & Disposal of Hazardous Waste for more details). Note: The Company has an agreement with Greenstar for the removal of waste at agreed rates.
- If contaminated with fuel or oil pump the water to an oil interceptor, if one is available on the site.
- If the water is contaminated with oil floating on the surface it may be possible to remove the oil using oil-only absorbent pads / socks and then pump the water out to a sediment pond or other area on site where it cannot flow directly into surface waters (e.g. a grassed area). However, only do this if you are sure that all the contaminant has first been completely removed. Note: used absorbent pads must be disposed of in accordance with EP-21 Handling & Disposal of Hazardous Waste.

7. Use of Hazardous Substances on Site

- Drums with hazardous substances must be stored within a drip tray (or sump pallet) while being used on site
- Containers holding hazardous substances must be stored within a drip while being used on site
- Drums and containers should not be left unattended on site, particularly over night or weekends, and must be returned to the chemical stores / designated storage area at the end of each day.

8. Inspection & Emergency Response


- Regular inspection of containers and storage areas must be carried out to check for leaks and ensure other material is not stored within the containment area, thus reducing capacity. This could be carried out as part of the Environmental Inspection (refer to Procedure EP-05).

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<ul style="list-style-type: none"> • Emergency spill kits must be available on site at all times, with adequate stock of absorbent materials and any PPE required, and staff informed of their correct use and disposal. • For flammable materials ensure that appropriate fire extinguishers are available. • A contingency plan should be prepared to deal with any spill (refer to EP-15 Containing & Cleaning Up Spills), including notification procedures to appropriate authorities.
<p>References:</p> <p>Parts adapted from UK Environment Agency PPG 26 (2004) 'Storage and Handling of Drums and Intermediate Bulk Containers'</p> <p>Enterprise Ireland Best Practice Guide BPGCS005 Oil Storage Guidelines</p>
EPA (2003) 'Guidance Note on Storage & Transfer of Materials for Scheduled Activities'
<p>Attachments:</p> <p>Details of storage options and containment systems, from PPG 26 (2004).</p> <p>Examples (Photographs)</p>


Attachment 1: Storage options and systems available for storage of drums, containers and intermediate bulk carriers (IBCs), from UK Environment Agency PPG 26 (2004).

Storage Option	Description	Uses	Notes
Drip tray	Simple container placed under single drum to contain minor leaks and spillages.	Drums Containers	Ideal for single drums in storage or at their point of use.
Dispensing sump trolley	Proprietary system used for transporting and then dispensing a single drum.	Drums	Good where products need to be stored next to their point of use. Fully bunded when in horizontal position.
Sump pallets	Pallets to hold two or four drums with a sump to contain spills.	Drums Containers IBCs	Containers are kept off the ground and containment is provided.
Decking	Decking units allow containers to stand off the ground on a grid while providing containment underneath.	Drums Containers IBCs	Proprietary units can be added to cover the floor area required, either in the area of use or in a dedicated store.
Drum racking	Racks specifically for the storage of drums, normally in pairs or rows of four.	Drums	May have integral bunding or otherwise can be used in dedicated stores. Drums are normally stored off the ground and in their horizontal position on the rack. In this position, drums should be orientated so that both bungs are covered with product (i.e. at 3 and 9 o'clock) and extra care will be needed to watch for leaks.
Conventional racking systems	The racking found in most warehouses, with the addition of chocks to keep drums in place.	Drums Containers IBCs	For use in dedicated stores where secondary containment is provided. Drums should be orientated as above.
Dedicated internal store	Purpose-built, prefabricated or adapted (e.g. freight container) store.	Drums Containers IBCs	Ideal where substantial storage capacity is required. Containment can be provided by means of stepped or ramped access, kerbing, bund walls, sloping floors or use of a proprietary system.

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Dedicated external store	Purpose-built external storage area incorporating containment design features.	Drums Containers IBCs	Useful for storing large quantities of materials, particularly where ventilation is an issue. Containment provided as above. In addition, containers should be protected from the elements by roofing (which will also prevent rainwater accumulating) and be stored off the ground. Consider the need for fencing for security and to prevent containers being ejected in the case of fire.
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Attachment 2: Hazardous Chemical Stores



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EP-15	Containing & Cleaning Up Spills			
Note: Always print or copy to double-sided pages		PROC. NO: EP-15	REV: 03	DATE: 25.03.2013
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Purpose:	To provide guidance on the management of spills of hazardous substances, particularly oil and fuel, which have the potential to pollute the environment.
Scope:	All sites and activities
Responsibility:	Contract/Project Manager, Site Agent, General Foreman, Site HSE Officer
Regulatory Requirements:	<ul style="list-style-type: none"> • Air Pollution Act, 1987 • Local Government (Water Pollution) Act, 1977 and Amendment Act, 1990 • Environmental Protection Agency Act, 1992 (Control of Volatile Organic Compound Emissions resulting from Petrol Storage and Distribution) Regulations, 1997 • Water Quality (Dangerous Substances) Regulations, 2001 • European Communities (Water Policy) (Amendment) Regulations 2008 • EPA Acts 1992-2003 • European Communities Environmental Objectives (Surface Water) Regulations 2009 • European Communities Environmental Objectives (Ground Water) Regulations 2010
Management Requirement:	<p>Spillages of fuels or oils from fixed or mobile storage tanks, or other harmful substances on construction sites can result in significant contamination of soil, surface waters and groundwater beneath and around the site. The release of fuel, oil or chemicals into waterways can reduce the level of oxygen available for fish, coat fish, aquatic animals, birds and plants, and contaminate waters that may be used for irrigation or drinking water. Such contamination represents a breach of several pieces of national legislation. Project planning must take account of the need to contain and limit the impact of any spills through a quick, coordinated response.</p> <p>If hazardous or potentially polluting substances are being used on site an emergency spill response procedure must be developed under the Site Health & Safety Plan and referenced in the Environmental Management Plan. A template Emergency Spill Response Plan is attached to this procedure.</p>
Management Procedure:	<p>1. Planning</p> <p>When considering the risk of a spill occurring on the site the first step is to minimise the potential for spills to occur, and should they occur, to minimise the impact of the spill on the environment. It is essential to ensure that all oils, fuels and harmful substances are stored in appropriate containers in suitably bunded or otherwise protected areas. The storage area should be as far away as possible from any sensitive receiving environment such as a river or habitat area. Refer to procedures EP-13 Bulk Fuel & Oil Storage and EP-14 Storage & Handling of Drums and Containers for further details.</p> <p>It is also important during the planning stage to have a good understanding of the drainage of the site and the location of potential receiving environments so that spill containment can effectively block the pathway of the pollutant to those environments. Consult drainage drawings and ensure that up-to-date information is available.</p> <p>Points to consider:</p> <ul style="list-style-type: none"> • The type and quantity of harmful substances being used on site, and thus the appropriate amount and type of spill containment materials required for their containment and clean up; • PPE required to safely handle contaminated materials. As a minimum gloves must be worn, however, further equipment may be required, including respiratory equipment; • The Safety Data Sheet (SDS) contains essential information – including ecological impacts, recommended containment and clean up methods, PPE and disposal requirements; • Ensure that any booms for rivers or exposed shorelines are long enough and have suitable anchorage points; • Absorbent granules and fibres generally absorb much more than their own weight. Check the manufacturer's

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guidelines for application rates and do not apply too much of the material, which will be classified as hazardous waste once used and will require specialist disposal (refer to Disposal below).

- Ensure that appropriate waste disposal containers are available to place contaminated material into following the clean up. These can be obtained from waste disposal contractors (refer to Disposal below).
- Contact the Purchasing Department for a list of suppliers of spill kits and absorbent materials.

2. Spill Kits & Absorbent Types

Adequate spill kits must be available on site to deal with a spill, should it occur. The type and amount of spill containment materials will depend on the substance being used and volume that can potentially be spilled. The following types of absorbents are available:

Oil-selective absorbents: white or light blue in colour. Do not absorb water. For spills in water or on land.

Universal absorbents: grey in colour. For spills on land. Cannot be applied to spills in water.

Chemical absorbents: may be yellow or grey in colour. For chemical or acid spills on land.

These absorbent types may be available as:

- Granules and shredded fibres, which can be applied to spills on land;
- pads and sausages, which can be used to contain or direct spills on land, particularly hard surfaces; and
- booms, which can be used to contain and absorb spills on the surface of waters.

Spill kits must be placed as close as possible to where they may be required, in a clearly marked container such as a wheelie bin. They must be available at fuel storage or refuelling areas, and next to watercourses when work is being carried out in their vicinity, or within their drainage catchment. All mobile bowzers must have a spill kit and drip tray with them at all times.

In addition to the spill containment materials spill kits must contain appropriate PPE (gloves as a minimum) and a copy of the Emergency Spill Response Plan. They must also contain disposal bags suitable for the removal of used absorbents and contaminated material, which are classified as hazardous waste. Alternatively, additional clearly marked containers may be provided in the same location as the spill kit). Refer to Disposal section below for further information.

3. Inspections & Maintenance of Spill Kits


Spill kits must be inspected regularly to ensure they are adequately stocked and in good order (if in remote locations they may be vandalised, have materials taken from them or rubbish thrown into them). Following use the spill kit must be restocked as soon as practical to ensure it is adequate to deal with any subsequent spills. An inventory of the spill kit contents may be contained in the spill kit (for example attached to the lid of a wheelie bin) or in the site office as a minimum.

The location and type of spill kits must be noted in the EMP and, for large sites, the spill kit locations must also be included on site plans attached to the EMP.

4. Emergency Coordinator & Other Responsible Personnel

It is a requirement under the Health and Safety Plan to have a designated Emergency Coordinator for the site, who will generally have primary responsibility for the implementation of the spill response procedure. However, other employees on site including the General Foreman, Area Supervisor, Safety Officers, Fitters and those responsible for refuelling should also be aware of the spill response procedure. Training may be required for all personnel responsible for responding to spills, who must:

- Know the location of spill kits and/or materials and how to apply them;
- Understand the principles of spill containment and be aware of the site drainage and locations of receiving

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<p>environments;</p> <ul style="list-style-type: none"> • Know the appropriate PPE requirements to deal with oils, fuels and other harmful substances used on the site;
<ul style="list-style-type: none"> • Know how to dispose of contaminated materials; and • Know the appropriate authorities to notify, if required, and emergency services to contact if the spill is beyond the capacity of the site resources to contain. The emergency contact list may include details for: <ul style="list-style-type: none"> ○ Emergency Services; ○ The Local Authority; ○ Inland Fisheries Board; ○ The Coast Guard; ○ The Health & Safety Authority; <p>Specialist clean up and waste disposal contractors.</p>
<p>5. Employee / Contractor Awareness</p> <p>All employees and contractors must be made aware of the procedure to deal with spills and, in particularly, who to contact in the event of a spill. Consideration should be given to:</p> <ul style="list-style-type: none"> • Providing general information on spill response during site inductions and pre-start safety meetings; • Providing copies of the spill response procedure to all contractors; and • Conducting tool box talks and emergency drills on spill response at regular intervals.
<p>Disposal of Contaminated Materials</p> <p>Used absorbent pads, sausages and contaminated granules, sand or earth are classified as hazardous waste and require specialist disposal (usually incineration overseas). For disposal they must be placed into UN Approved barrels (clamp-lidded 240L steel drums) or lined fibre international bulk carriers (FIBCs). These can be provided by a waste contractor, or check with the Purchasing Department for suppliers. Note that the Company has existing agreement with numerous waste contractors for the disposal of waste at agreed rates. Contact The Plant Department for details.</p> <p>If barrels or FIBCs are not available on the site any contaminated waste must be stored in impermeable containers and/or placed in an impermeable bunded area until barrels/FIBCs are sourced.</p> <p>Large volumes of soil or other materials contaminated with hazardous substances must be stored in an impermeable bunded area and will need to be removed by a suitably licensed waste contractor. If the material is to be stored for more than 24 hours it should be covered with polythene sheeting or similar to prevent ingress of rainwater and leaching of the hazardous substance.</p> <p>For further information refer to EP-21 Handling & Disposal of Hazardous Waste</p>
<p>References:</p> <p>FAS & CIF (2004) Construction & Demolition Waste Management – A Training Programme for Contractors & Site Managers (Course Notes).</p> <p>P Hyde & P Reeve (2001) Essentials of Environmental Management. IOSH</p> <p>UK Environment Agency (2001) PPG 18 Managing Fire Water and Major Spillages</p> <p>UK Environment Agency (2004) PPG 21 Pollution Incident Response Planning</p>
<p>Attachments:</p> <p>Photos</p> <p>Template - Emergency Spill Response Plan</p>

Photo 1: Oil-selective absorbent booms and pads applied to stop the flow of diesel down a stream



Photo 2: Spill kits located in diesel storage and refuelling area



Photos 3 & 4: Spill kits located next to watercourses



Absorbent Granules:



Absorbent Pads / Pillows:



Oil Selective Booms/Sausages:



Oil Selective Absorbents (Pads and Booms):

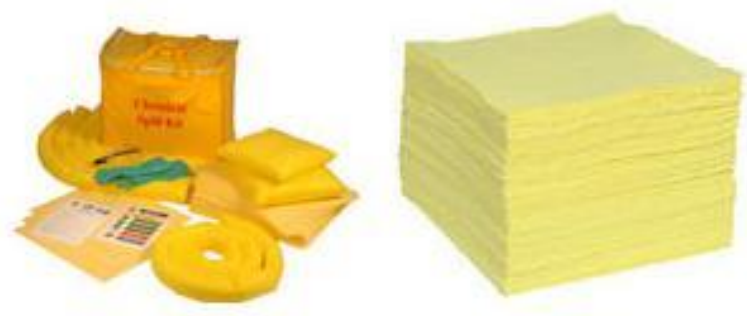


Universal Absorbents:



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Chemical Absorbents:



Emergency Spill Response Plan



Attachment 1 to EP-15: Template Spill Response Plan. May be modified to make site-specific

Rev: 03

25.03.2013

Emergency Response Coordinator on this site is: _____ **Mob:** _____

Site Safety, Health & Environmental (HSE) Officer: _____ **Mob:** _____

Contact the Emergency Response Coordinator or HSE Officer for advice & assistance

Consider Personnel Safety First

1. Immediately alert area occupants to evacuate area if necessary and report the spill to the Area Supervisor, HSE Officer or Emergency Coordinator.
2. The Emergency Response Team (ERT) will attend if there is a fire, or if any people require medical attention or have been exposed to hazardous substances. Contaminated clothing must be removed immediately and the skin flushed with water for at least 15 minutes.
3. If a volatile, flammable material has been spilled, switch off or remove any sources of ignition close to the spill. Ventilate the area if indoors.
4. Put on personnel protective equipment, as appropriate to the substance spilled. As a minimum gloves must be worn (refer to the Material Safety Data Sheet if in doubt or consult the HSE Officer / Emergency Coordinator). Gloves should be available in the spill kit.
5. Consider the need for respiratory protection. Never enter a contaminated atmosphere without training or use a respirator without training. If respiratory protection is needed and no trained personnel are available do not approach spill and keep up wind.

Contact emergency services on 112 if the spill: **cannot be contained;** **and/or**
 poses a serious public safety hazard; **and/or**
 threatens a protected habitat area or watercourse.

Spill Control and Clean Up

1. Try to identify the source of the pollutant and, if possible and safe to do so, stop the flow.
2. Get a spill kit(s) and apply absorbent materials appropriate to the spill type. Ensure that waste containers are available in which to place used absorbents.
3. Prevent the spill from spreading and contain it in as small an area as possible, using absorbent sausages, sand, earth or polythene to dam the flow. Divert any flow away from drains, sewers or watercourses or prevent pollutants from entering drains by placing sausages and/or polythene around or over the opening.

Never wash spillage into the drainage system and never use detergents

4. If any pollutant has entered a watercourse absorbent booms must be positioned to prevent the spread of the pollutant. Ensure that the booms are anchored to the shore and that water cannot flow around the edges of the boom. If there is not enough flow in the water to push the pollutant into the boom you may need to apply absorbent pads to the surface to soak up the pollutant.
5. If a large volume of liquid has been contained and is not soaking into the ground (e.g. if the spill occurs on concrete) it may be more appropriate to have a waste contractor remove the liquid by drawing it directly into a tanker for disposal, or pumping it into an IBC, which can be collected for disposal.
6. Alternatively if an oil interceptor is located nearby, any oil or oil/water mixture may be pumped into this, as long as the capacity of the interceptor is not exceeded.
7. Place used absorbent pads and shovel contaminated sand/earth/absorbent granules into sacks or containers. Store large volumes of contaminated soil/material in a contained impervious area, such as a plastic-lined bund.
8. Used absorbent pads / sausages / booms that are not fully laden with pollutant (i.e. not dripping when they are held up) may be stored in appropriate containers for reuse. Any such containers must be sealed and clearly labelled as to their contents and stored in a bunded area.
9. The HSE Officer or Emergency Coordinator shall notify the relevant authority, the Health & Safety Authority and neighbours, and complete an Environmental Incident Report, if required.

Emergency Spill Response Plan

Attachment 1 to EP-15: Template Spill Response Plan. May be modified to make site-specific



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