

**Nightingale Electrical (Bolton) Ltd**

**Environmental  
Management  
System  
2011**

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# DOCUMENT CONTROL

## Document issue and change

This document is subject to formal change and control procedures amendments.

### Amendment history

Revision	Nature of Change	Reviewed by	Review Date	Approved by	Approval Date
01					
02					
03					
04					
05					

### Revision 200x authorisation.

Reviewed by	Signature	Approved by	Signature

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# Section 1

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## ENVIRONMENTAL POLICY

## ENVIRONMENTAL POLICY STATEMENT

The company recognises that its activities have an impact on the environment and is committed to improve its environmental performance and minimise the harmful effects through caring policies and effective management.

The company accepts and acknowledges its obligations and responsibilities under legislation and guidance dealing with environmental issues that effect or arise in consequence of its business.

The company will apply the methodology of its Environmental Management System (EMS) to identify and determine the environmental issues requiring attention and implementation of the measures to achieve continuous improvement. In particular attention will be given to:

- Environmental awareness and understanding of our business amongst those working for or on behalf of the company, providing training as necessary and encouraging sub-contractors and suppliers to adopt sound environmental practices;
- The considerate use of land undergoing development having special regard to archaeology finds and the storage, treatment and disposal of any waste, hazardous or potentially toxic materials to avoid environmental harm;
- The use and re-use of materials to minimise and curtail creating waste and, whenever practicable, using materials and products from sustainable sources;
- Control the emission of pollutants, noise and dust, and the use of potentially harmful substances and treatments during construction activities;
- Conserve energy through sensible selection, use and management of resources, equipment, plant and transport;
- The continued development, monitoring and investigation of systems, practices and procedures at each stage of construction to ensure the environment remain a foremost consideration.

This statement is fully supported by the Chairman/Managing Director/Safety Director\*

Dated: 4.1.11

Signed:

**C Nightingale**

# Section 2

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## PLANNING

## 2.1 INITIAL ENVIRONMENTAL REVIEW

### Environmental Impacts and Aspects

#### *Identification of environmental aspects and impacts*

An organisation's policy, objectives and targets should be based on knowledge about the environmental aspects and significant environmental impacts associated with its activities, products or services. This can ensure that the significant environmental impacts associated with these aspects are taken into account in setting the environmental objectives. The relation between environmental aspects and impacts is one of cause and effect. An environmental aspect refers to an element of an organisation's activity, which can have a beneficial or adverse effect on the environment. For example, it could involve a discharge, an emission, consumption or reuse of a material, or noise. An impact refers to the change which takes place in the environment as a result of the aspect. Examples of impacts might include contamination of water or depletion of a natural resource.

The identification and assessment of environmental aspects from the initial review and the evaluation of environmental impacts is a process that can be dealt with and recorded, refer to: **(Appendix Form 2)**

This section is intended to provide a process for an organisation to identify significant environmental aspects that should be addressed as a priority by the organisation's environmental management system. This process should take into account the cost and time of undertaking the analysis and the availability of reliable data. Information already developed for regulatory or other purposes may be used in this process. Organisations may also take into account the degree of practical control they may have over the environmental aspects being considered.

Organisations determine what their environmental aspects are taking into account the inputs and outputs associated with their current and relevant past activities, products and services.

## 2.2 REGISTER OF ENVIRONMENTAL EFFECTS

### Environmental Risk Assessment

#### *Core subjects and guidance*

There are 11 key issues. Many of these overlap, but all should be considered.

1. Site Set-up
2. Site drainage
3. Treatment of site water
4. Water disposal
5. Material Storage
6. Silt
7. Fuel/oil storage and use
8. Concrete, cement and bentonite
9. Working near watercourse
10. Demolition
11. Emergency response

Each topic is covered on a single sheet and found in **(Appendix Form 3)**. One side gives a brief list of points summarising issues you need to consider. It is recommended that you give all points due consideration and act upon them. On the other side is a checklist that will jog your memory, help monitor the day to day performance of the site and alert you to areas where actions may be required. The three columns on the right hand side allows for quantification to be recorded if appropriate. Consider photocopying the checklists and completing them during regular site walkovers to ensure your site remains pollution and prosecution free.

The guidance given is intended to point out the best practice for managing environmental issues on site including site set-up, determining where and how to dispose of site water, and taking appropriate action in the event of a spillage. It is intended to support and not replace established contractual procedures or method statements.

#### Terms and Definitions

The term **environmental regulator** includes the Environmental Agency (England and Wales), the Scottish Environmental Protection Agency, the Environmental and heritage Service in Northern Ireland and the Department of Public Services in Jersey and Guernsey.

Where Environmental Agency Pollution Guidelines (**PPG**) are referred to, similar versions may be obtained from the Scottish Environmental Protection Agency.

Where guidance refers to **asking permission** this includes obtaining permits to work, regulatory consents, approvals or verbal agreement as required, and should be sought from the person in control of the site eg main contractor, and/or the environment regulator as required.

## 2.3 REGISTER OF LEGISLATION AND GUIDANCE

### Environmental Law applicable in England, Scotland, Northern Ireland

Developing a register of legislation is the key to identifying where the companies activities are affected by the aspects and impacts already identified.

**(Appendix Form 4)** lists the relevant construction related environmental legislative requirements. Each site must understand how the legislation applies to its activities in addition to incorporating any local requirements.

## 2.4 HAZARDOUS WASTE

### Introduction

Hazardous Waste is so called because it has hazardous properties that may render it harmful to human health or the environment. Examples of wastes classed as hazardous include:

- Asbestos
- Lead-acid batteries
- Electrical equipment
- Contaminated land
- Solvents
- Fluorescent light tubes
- Chemical wastes
- Pesticides

Under the Duty of Care, waste producers have a duty to classify and describe their waste correctly; this includes selecting the most appropriate six-digit code from the European Waste Catalogue (EWC)

The European Waste Catalogue (EWC) lists all wastes, grouped according to generic industry or process. Each waste has a six digit code.

A waste is hazardous if it is classified as such in the EWC. Hazardous Wastes are identified in the EWC with an (\*).

Some wastes are classed as hazardous outright. Other wastes require separate assessments to determine whether they are hazardous or not, depending on the amount of dangerous substances present above threshold concentrations.

Information contained on the SAFETY DATA SHEET that should accompany materials/chemicals received at site and should assist in determining if your waste is hazardous.

This section provides a practical approach to classifying hazardous waste by:

- outlining the methodology for assessing wastes based on the current EWC 2002; and
- highlighting where to find more detailed advice in the Technical Guidance Note.

### Hazardous waste assessment methodology

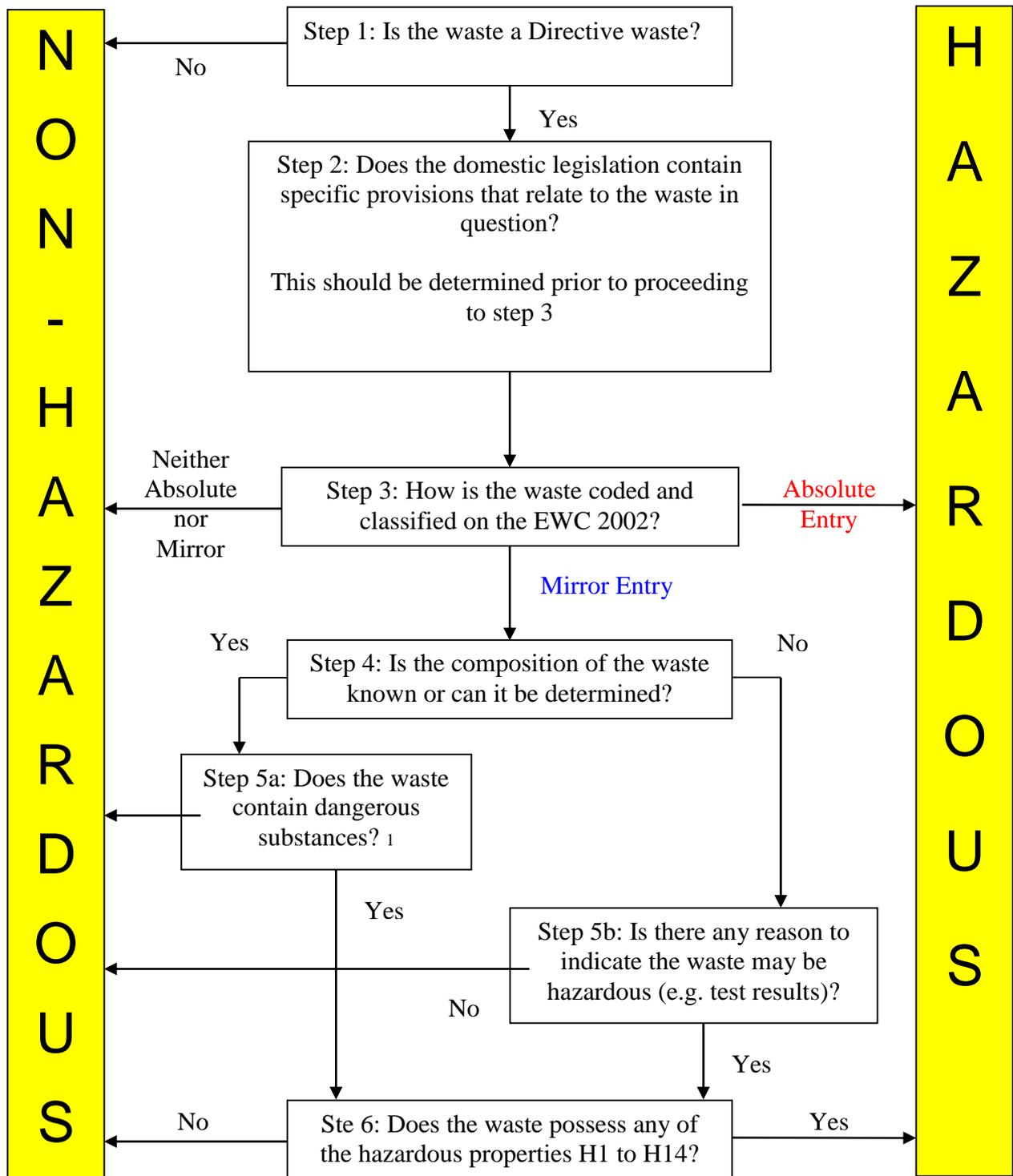
There is a series of steps involved in determining if a waste is hazardous or non-hazardous.

- Step 1:** Is the Waste a Directive Waste?
- Step 2:** Does the domestic legislation contain specific provisions that relate to the waste in question?  
This should be determined prior to proceeding to step 3
- Step 3:** How is the waste coded and classified in the EWC?
- Step 4:** Is the composition of the waste known or can it be determined?

**Step 5a:** Does the waste contain dangerous substances?

**Step 5b:** Is there any reason to indicate the waste may be hazardous (e.g. test results)?

**Step 6:** Does the waste possess any of the hazardous properties H1 to H14? (Refer to data sheets).



1Infectious substances should be considered at this stage of the Hazardous Waste Methodology

## Hazardous Waste

### *Interpretation of the definition of the classification of hazardous waste*

The EWC refers to three types of entry

**"Absolute Entries"** A number of wastes marked with an asterisk (\*) are deemed to be hazardous regardless of their composition or concentration of any "dangerous substance" within the waste. Such entries have been termed "absolute entries" and are coloured red in this document for clarity.

**"Mirror Entries"** Some wastes have the potential to be either hazardous or not, depending on whether they contain "dangerous substances" at or above certain thresholds. These wastes are covered by linked (usually paired) entries, collectively called "mirror entries" that comprise:

- a hazardous waste entry marked with an asterisk (\*), coloured blue in this document, and
- an alternative non-hazardous waste entry (or entries) not marked with an asterisk.

**"Non-Hazardous Entries"** Where a waste is not listed in the EWC 2002 with an asterisk, then it is not hazardous. However where the non-hazardous entry forms part of a "mirror entry" assessment is required to determine whether the hazardous or non-hazardous waste entry is applicable.

An extract from the European Waste Catalogue is provided in [\(Appendix Form 5\)](#)

## Hazardous Waste Regulations 2005

### *Advice on the Notification of premises*

This section sets out some factors to be taken into account in determining what premises are and gives some examples. It particularly focuses on buildings / sites that have multiple occupiers.

- General requirement to notify
- What is a premise?
- Mobile Services
- Yards/Waste Transfer/Contaminated Land

### *Requirement to Notify*

Producers of hazardous waste are required to notify premises at which they produce hazardous waste. Some premises are exempt from notification. Those are premises:

- listed in regulation 23(3) of the Hazardous Waste (England and Wales) Regulations 2005 (HWR); and
- at which less than 200kg (in total) of hazardous waste is produced in any twelve months period; and
- any hazardous waste produced there is removed by a registered carrier (under the Control of Pollution (Amendment) Act 1989) or a person exempt from registration.

It is an offence not to notify premises at which hazardous waste is produced (unless they are exempt premises) or to remove hazardous waste from premises, which are not notified (or exempt from notification).

### *Premises*

Premises for the purposes of the HWR include any ship and any other means of transport from which a mobile service is operated.

Thus premises should be given its ordinary meaning but recognising that they can include ships and other vehicles such as road vehicles, trains, barges, aircraft etc. from which a mobile service is operated.

It will be a question of fact what premises are. All the circumstances need to be considered but the following factors are likely to be relevant (though this is not an exhaustive list – all the facts must be considered):

- is an area used exclusively by an operating unit;
- is there a specific area in which a particular activity is carried out separate from other activities occurring at the site;
- is there clear demarcation between areas – this could be physical separation such as walls or boundaries or if not physical a clear understanding that an area is for one operator’s use;
- does an operator have the right to exclude others from their work area; and
- is there a legal interest in a particular space – a legal interest should be given a wide meaning and can include a license – we should not be asking to see those documents it is enough to know that use of a particular area is controlled by some form of legal agreement between parties.

### DEFRA's guidance on the HWR

<http://www.defra.gov.uk/environment/waste/special/pdf/hwr-notifguidance.pdf> provides:

“Where organisations have multiple premises, each premises will need to be notified to the Environment Agency, unless exempt, although a central office may do this on behalf of the individual premises if they wish. If single premises are occupied by a number of different organisations producing hazardous waste, the part of the premises occupied by each organisation should be individually notified.”

### ***Mobile services and premises at which >200kg hazardous waste will be produced***

Regulation 21 requires that a producer must notify relevant premises. Regulation 29 provides that where a producer operates a mobile service the relevant premises are the service premises. If a person operates a mobile service premises they must notify their service premises. They are not entitled to operate under any exemption applicable to site premises.

Mobile service operators should notify the premises from which they operate their service (referred to in the HWR as service premises) where they produce hazardous waste at premises, which they do not own or occupy, (referred to in the HWR as the site premises or related premises) and the quantity of hazardous waste they produce is less than 200kg in any twelve month period.

The less than 200kg limitation relates to each site at which the mobile service operator produces hazardous waste. Thus the notification for the mobile service operator can be used for any number of premises at which that operator produces less than 200kg of hazardous waste in any twelve-month period. If the mobile service provider visits the same premises several times during a twelve-month period, they must ensure that the less than 200kg qualifying limitation for those premises is not exceeded. Where the mobile service operator produces more than 200kg at a particular site during a twelve month period, *that* site must be notified to the Environment Agency, but the mobile service operator can continue to use the notification for the mobile service at other premises visited where less than 200kg of hazardous waste is produced.

If more than one service provider produces hazardous waste at specific premises, each of them can rely upon the less than 200kg limit because the qualifying limit applies the “hazardous waste produced in the course of that service”. For example, there could be five mobile service producers attending a set of premises. Each of them could produce up to 200kg of hazardous waste in any twelve-month period and each of them could rely on their service premises notification.

If any mobile service provider produces 200kg or more of hazardous waste at any site premises they must notify the site premises (see regulation 24(1)(d)).

Business units producing their own hazardous waste (as opposed to any produced by a visiting mobile service) cannot rely on the mobile service notification for their own waste and would need to notify unless exempt.

Generally, a mobile service provider will have to comply with the consignment note requirements under the HWR when the waste is moved from the site premises their depot or another facility.

Where there is an **open yard and several operators** each have responsibility for and use of a clearly defined part of that yard each part should be notified. Where there is no clear distinction the entire premises should be notified.

The total amount of hazardous waste produced by all the producers at the site should be taken into account in deciding whether the premises are exempt or not. If there is any doubt whether the premises are exempt or not, it is open to any of the operators of the yard to notify the premises. If the premises are not notified and the exemption limit is exceeded, all the producers will be liable to prosecution.

**Waste transfer stations** or collection points will be required to notify because they will be premises from which hazardous waste will be removed as provided for by regulation 21 HWR

**Contaminated land site** where more than one producer may be operating at any one time (unless there is a genuinely discrete area operated as separate premises from the contaminated land site) should be treated as single premises and notified once. The obligation for the notification should generally be arranged by the main contractor for the site. There is no requirement to expect each sub-contractor to notify the premises separately.

***(The Hazardous Waste Notification of Premises Form is provided in Appendix Form 6)***

## 2.5 SITE WASTE MANAGEMENT PLAN

### Design phase requirements

Any efforts to improve resource efficiency and minimise waste during the design phase of a construction project should be described in the site waste management plan. This would simply be a statement that confirmed whether alternative, more resource efficient methods had been adopted, and if desired the degree of cost savings. This would allow the source of any cost-savings to be more easily traced as the plan would encompass the entire design-build process.

### Pre-commencement

For all projects over £300,000 a SWMP is prepared which includes the following information:

The identity of:

- the person who drafted the Plan;
- the person in charge of the project; and
- the contractor used (if there is more than one contractor, the principal contractor);

A description of the works proposed including the:

- location of the site; and
- the estimated value of the project;
- a description of the waste type that will be produced in the course of the project;
- an estimate of the volume of each different waste produced;
- the waste management action proposed for each waste type ie reuse, recycling, recovery or disposal; and
- a declaration that the person in charge of the project and the principal contractor will take all reasonable steps to ensure that waste management controls eg the duty of care, will be observed.

### Commencement of work

#### Projects that are over £300,000 and less than £500,000 in value

Once work begins, certain levels of monitoring and recording will be required.

The person in charge or the contractor would need to record:

- the identity of the waste management contractor removing the waste;
- the types of waste removed; and
- the site that the contractor is taking the waste to.

Within one month of the work being completed he must add to the plan:

- confirmation that the site waste management plan has been monitored on a regular basis to ensure that work is progressing according to the plan and that the plan was updated in accordance with this regulation; and
- a description of any lessons learnt from any differences in circumstances between the first draft of the site waste management plan and actual performance.

### Projects over £500,000

More details of what actually happens are required and the Plan itself is regularly reviewed.

The person in charge or the contractor would need to record:

When any waste is removed from the construction site:

- the identity of the waste management contractor removing the waste;
- a copy of, or reference to, the waste carrier registration of the carrier; and
- a copy of, or reference to, the waste transfer note.

As often as necessary to ensure that the plan accurately reflects the progress of the project, and in any event not less than every six months, he must:

- assess the plan;
- record the types and quantities of waste produced;
- record the types and quantities of waste that have been—
  - a. re-used on-site,
  - b. re-used off-site;
  - c. recycled for use on-site;
  - d. recycled for use off-site;
  - e. sent to recycling facility;
  - f. sent to waste management licence exempt site; or
  - g. sent to landfill site for disposal; and
  - h. produce a further plan, if it is necessary to do so, making changes necessary to reflect the progress of the project.

Within one month of the work being completed he must add to the plan:

- confirmation that the site waste management plan has been monitored on a regular basis to ensure that work is progressing according to the plan and that the plan was updated in accordance with this regulation;
- a description of any lessons learnt from any differences in circumstances between the first draft of the site waste management plan and actual performance
- a comparison of the estimated quantities of each waste type against the actual quantities of each waste type;
- where relevant, drawing on any lessons learnt, an action plan to address these for the next project; and
- an estimate of the cost savings that have been achieved by completing and implementing a site waste management plan.

***(A Site Waste Management Plan Pro-forma is provided in the Appendix Form 7)***



# SECTION 3

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## IMPLEMENTATION AND OPERATION

## 3.1 DEFINE ORGANISATION AND PERSONNEL

### Guidance

The successful implementation of an environmental management system calls for the commitment of all employees of the organisation. Environmental responsibilities therefore should not be seen as confined to the environmental function, but may also include other areas of an organisation, such as operational management or staff functions other than environmental.

### *Responsibilities and Accountabilities*

The commitment of all employees to the successful implementation of an environmental management system should begin at the highest levels of management. Top management should establish the organisation's environmental policy and ensure that the environmental management system is implemented. As part of this commitment, top management should designate (a) specific management representative(s) with defined responsibility and authority for implementing the environmental management system. In large or complex organizations there may be more than one designated representative. In small or medium sized enterprises, these responsibilities may be undertaken by one individual.

It is also important that the key environmental management system responsibilities are well defined and communicated to personnel. People should know whose job it is to do what. The organisational structure usually consists of four main elements: the organizational chart, job descriptions, clear reporting lines and procedures, and performance targets. The organizational chart visualizes the organizational structure, main responsibilities and reporting lines. Issues that could be considered in developing the organizational structure are:

- provision of resources;
- action to prevent non-compliance;
- identifying potential problems;
- recommending solutions to problems and verifying their implementation; and
- acting in emergency situations.

It is often recommended that the environmental management responsibilities should follow the operational hierarchy, so that it becomes part of the everyday management of running the enterprise. The environmental manager should be responsible, either directly or by managing others, for ensuring that the environmental management system is established, implemented and effective. Top management should ensure that an appropriate level of resources are provided to ensure that the environmental management system is implemented and maintained.

For an organization implementing an EMS simultaneously at head office and at site level defining responsibility is critical in often complicated situations. The following example shows clearly the structure and responsibilities.

## Organisation and Personnel - Responsibility for Environmental Management

### **EHS Director**

The EHS Director is responsible for implementing the requirements of the Environmental Policy Statement. The Director is also responsible for providing adequate resources for effective environmental management including specific environmental/EHS management practitioners.

**The EHS Director is responsible for the application, maintenance and improvement of the EMS in accordance with organisation, contractual and legislative requirements. He is responsible for reporting to senior management on the performance and effectiveness of the EMS via the Management Review.**

### **Line Management**

Line Managers are responsible for the implementation of the EMS through their actions and those of their staff under the guidance and assistance of the EHS Department. Line management is responsible for ensuring that all processes under their control which have an environmental impact are assessed and control measures put in place, managed and recorded.

### **Environmental Practitioners**

Environmental practitioners are responsible for implementing and maintaining the EMS, assisting and advising Project staff on environmental documentation, planning, training and awareness and operational control. They are responsible for carrying out environmental inspections and audits and report performance of the EMS via the Management Review Procedure.

### **Site Staff**

Site staff has day-to-day responsibility to ensure that site operations are carried out according to documented requirements of the EMS and the Client as directed by senior site staff.

### **Specialist Assistance**

Where necessary, specialist environmental consultants are consulted where expertise is not available in-house to assist in planning and operational control of significant environmental impacts.

### **Sub-contractors**

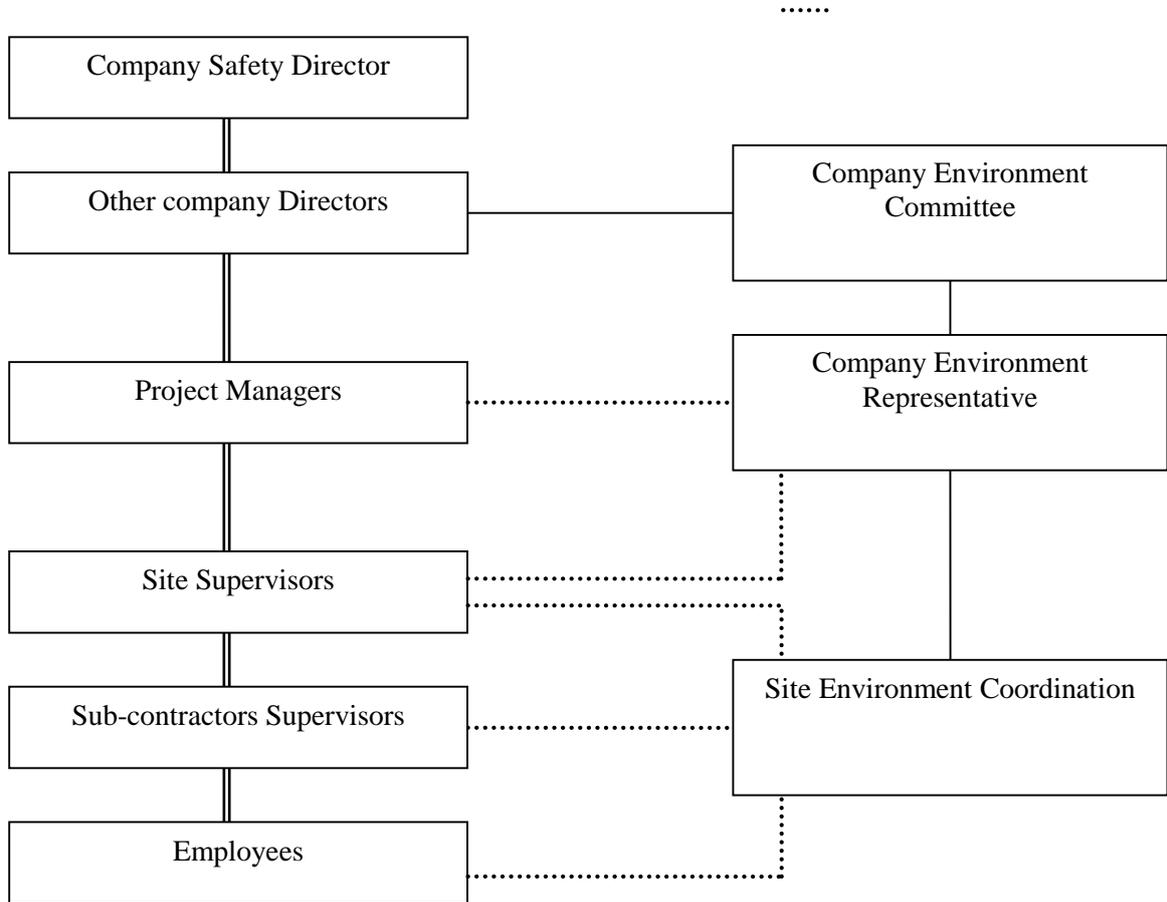
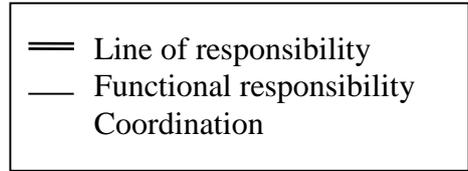
Sub-contractor's responsibilities for environmental management are defined in the site/project/contract Environmental Management Plans and are agreed under contract.

### ***Documentation and Communication of Environmental Responsibility***

Specific environmental/EHS practitioners' responsibility for environmental management is documented in individual job descriptions.

Site/project/contract environmental responsibility will be documented in site/project/contract environmental/EHS plans and are briefed out at project start-up and ongoing as required.

**ORGANISATIONAL CHART**  
**ENVIRONMENTALMANAGEMENTSYSTEM**  
**LINEOFRESPONSIBILITY–FLOWCHART**  
**BUILDING DIVISION**



## 3.2 TRAINING AND COMMUNICATIONS

To be successful, responsibilities should be supported by the necessary authority and training to enable the individuals to carry out their tasks effectively. An effective and on-going training program is necessary for all levels of the organisation to ensure awareness of environmental issues. Training needs have to be assessed taking into account the job to be carried out, and the skills, education and experience of the individuals in charge.

Training should instruct on the organisation's environmental policy, objectives and action program. It should address the significant environmental impacts, actual or potential, and the environmental benefits of improved personal performance. Equally, it should highlight the potential consequences of departure from specified operating procedures. A successful training program is an interactive process that provides the participants with information, awareness, knowledge, understanding and motivation. This interactive process requires managers to respond to suggestions and initiatives raised pursuant to the training sessions. Even if the suggestions are not appropriate, they need to be treated seriously so that the initiative and impetus of the training is maintained. The benefits of training can be quickly lost if the employees feel that the training is carried out in a vacuum, and that other sections of the organisation are not fulfilling their roles.

### Environmental Training

Environmental training needs are addressed at recruitment and appraisal, according to the company Performance Management Process. Selection and implementation of training material is managed by the company Training Manager.

### Environmental Awareness

The Environmental Policy is briefed out to at induction.

Environmental awareness is provided by:

- Environmental Risk Assessments: and
- Toolbox Talks.

Further environmental briefings on topical issues are carried out as required.

### Environmental Competence

Environmental competencies are stated in individuals' job descriptions and reflect the role and significance of specific tasks to impacts on the environment. Records of environmental competencies are retained with the company Training Manager.

### Communication

Third Party Liaison and Complaints.

Other documentation (*e.g. environmental aspects, internal procedures, etc.*) shall not be made publicly available except by express permission of the *Senior Manager* on site.

## Environmental management system documentation

All sites must document their arrangements for environmental management by producing a Site Environmental Plan.

Local procedures are created for environmental aspects that require specific arrangements and instruction.

## Document control

Control of the EMS documentation will be managed by:

Hard copy files of EMS documents will be kept and archived. Electronic information will be stored on the company database for future retrieval.

## Operational control

Significant environmental impacts are identified using Risk Assessment and Control. Management of significant environmental impacts is documented according to the Site Environmental Plan, and site-specific risk assessments. These documents are briefed out at site level.

Guidance on operational controls is provided in the following documentation:

- Register of Environmental Aspects and Impacts
- Environmental Risk Assessments: Pollution Prevention and Control Guidance
- Site Waste Management Plan

Sub-contractors will produce method statements for review and are accepted once environmental controls are sufficiently in place.

Procedures relevant to suppliers and contractors are communicated via site/project/contract management or delegated representatives.

## Emergency preparedness and response

Emergency response to environmental incidents is carried out in accordance with Procedures and includes a requirement to test the procedure.

# SECTION 4

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## CHECKING AND CORRECTIVE ACTION

## 4.1 MONITORING

Measuring, monitoring and evaluating are key activities of an environmental management system, to ensure that the organisation is performing in accordance with the environmental policy, objectives and action program.

In establishing and maintaining procedures for investigating and correcting non-conformance, the organisation should include the following basic elements:

- identifying the cause of the non-conformance;
- identifying and implementing the necessary corrective action;
- implementing or modifying controls necessary to avoid repetition of the non-conformance;
- recording any changes in written procedures resulting from corrective action.

Audits may be performed by personnel from within the organization or by external persons selected by the organisation. In either case the persons conducting the audit should be in a position to do so impartially and objectively. A timetable for planning audits is shown in **(appendix form 8)**

Regular inspections should be carried out to see the correct management procedures are adopted and implemented at all levels throughout the organisation.

## 4.2 RECORDS

Records will be filed and archived as part of the system. It is important that records are retained to validate. Consideration will be given to the following

- Reported incidents
- Incidents
- Insurance Claims
- Audit Reports
- Minutes
- Inspections
- Non-Compliances
- Sub-Contractor Incidents
- Sub-Contractor Info
- Publication of results

## 4.3 MANAGEMENT REVIEW

The organisation will review and continually improve its environment management system, to achieve overall improvement in environmental performance. At regular intervals management will carry out a review of the environmental management system to ensure its continuing suitability and effectiveness.

The scope of the review will be comprehensive, though not all elements of the environmental management system will be reviewed at once and the review process may well take place over a period of time.

Some issues to be considered in the review are:

- review of the environmental objectives and targets;
- audit findings;
- concerns amongst relevant interested parties; and
- evaluation of the effectiveness of the environmental management system;
- evaluation of the suitability of the environmental policy and the need for changes in the light of changing legislation, changing expectations and requirements of interested parties, changes in the products or activities of the organisation, developments in technology, lessons learned from environmental incidents, market preferences, reporting and communication.

Any audits planned and regular inspections will be recorded on ***(Appendix forms 8 and 9)***



# Appendices

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## APPENDICES

### Appendix Form1

#### Glossary

##### **Best available techniques/technology (BAT)**

The techniques/technology most effective in preventing, minimising or rendering harmless polluting releases and that are economically and technically viable. The techniques/technology should be procurable by operators of the process in question, and while they do not have to be in general use, they should be generally accessible. Availability can include techniques/technology still at the pilot stage. 'Technique' includes both the plant in which the process is carried out and how the process is operated. It includes the numbers and competencies of staff, working methods and supervision, and the design, construction, layout and maintenance of buildings.

##### **Best practicable environmental option (BPEO)**

The option which provides the most benefit or least damage to the environment as a whole, at an acceptable cost in both the long and short term. Emissions and wastes should be minimised and re-used, recovered or recycled, or directed to the environmental medium (air, water, land) where the least environmental harm will occur.

##### **Clean technology**

Technology which is designed to reduce environmental impacts (often waste material) from equipment or processes.

##### **Continual improvement**

Process of enhancing the EMS to achieve improvements in overall environmental performance in line with the organisation's environmental policy.

##### **Environmental aspect**

An element of an organisation's activities, products and services which can interact with the environment viz. 'causes'.

##### **Environmental impact**

Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's activities, products or services viz. 'effects'.

##### **Environmental Management System (EMS)**

The part of the overall management system that includes organisational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy.

##### **Environmental Policy Statement**

The organisation's statement of intent in response to environmental matters.

##### **Environmental supply chain management (ESCM)**

The supply chain relates to the stream of activities involved in providing goods or services to customers. ESCM is where an organisation exercises control or influence over that stream of activities.

##### **Mass Balancing**

The measurement of the total inputs of a substance into a process, and the total outputs of that substance from the process, in order to assess the extent and nature of any losses of that substance at various stages in the process. Once assessed, a plan can be implemented to reduce these losses.

### ***Objectives***

An objective is a long-term goal that defines what is to be achieved in a particular area e.g. reduce energy consumption. Objectives should illustrate a commitment to environmental improvement and can be set for investigation or ongoing management of environmental issues. New objectives need to be set once original objectives have been met.

### ***Prevention of pollution***

Use of processes, practices, materials or products that avoid, reduce or control pollution, which may include recycling, treatment, process change, control mechanisms, efficient use of resources and material substitution.

### ***Register of legislation***

Documentation that demonstrates the organisation has access to, and understanding of its environmental legal requirements.

Significant environmental aspect

An environmental aspect that has or can have a significant environmental impact.

### ***Sustainable development***

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development requires the maintenance or improvement of social, economic and environmental standards.

### ***Register of legislation***

Documentation that demonstrates the organisation has access to, and understanding of its environmental legal requirements.

### ***Targets***

Set environmental objectives are normally supported by shorter-term targets, achievement of which results in the achievement of the overall objective. A target quantifies an element of an objective, e.g. "reduce energy consumption by 20% within two years". Targets usually focus on environmental compliance and reducing risk

## Appendix Form 2

### Environmental Aspect Assessment Register

Project: ..... Ref: ..... Date: .....

		Pre-tender	Comments at tender settlement	Pre-commencement review project no.	Additions/changes at construction phase
<b>1.0</b>	<b>Environmental</b>				
1.1	Is there an Environmental Statement available from the planning application?				
1.2	Add here any special requirements (such as Sites of Special Scientific Interest[SSSI]; Archaeological requirements; Tree Preservation Orders; Flora/Fauna requirements of the site; known contaminants)				
1.3	Is a BREEAM/ECO HOMES Survey required?				
1.4	Other Environmental considerations being imposed by the client, e.g. WRAP.				
1.5	Are the works near a Water Course? Ref. PPG 5.				
1.6	Is there likely to be a requirement to liaise with the Local Authority regarding Section 61 of the Control of Pollution Act 1974?				
<b>2.0</b>	<b>Site Investigation</b>				
2.1	Has a Site Investigation been carried out to investigate contaminants present? Also reference OP.01 Section 4.1.7.				
2.2	Are there any hazards expected, following the site investigation/history, from the following contaminants:				

		Pre-tender	Comments at tender settlement	Pre-commencement review project no.	Additions/changes at construction phase
2.2.1	Asbestos (Notification to be given to HSE at least 14 days before commencing work, and use specialist contractors who have a current licence).				
2.2.2	Radioactive substances (To be investigated by an experienced and qualified specialist and suitable precautions to be taken under the Ionizing Radiations Regulations 1985, to protect site investigators from the risk before any other site investigations are carried out). Authorisation to dispose of any radioactive substance from the site, under the Radioactive Substances Act 1960, to be obtained from the Radiochemical Inspectorate.				
2.2.3	Biological organisms Medical waste; contaminated soil – Tetanus – Leptospirosis				
2.2.4	Biological organism anthrax (Land used by tanneries, or to bury diseased animals).				
2.2.5	Gases or vapours, or combustible materials				
2.2.6	Corrosive liquids				
2.2.7	Carcinogens				
2.2.8	Invasive Plants Japanese Knotweed; Himalayan Balsam; Giant Hogweed (Note: Giant Hogweed is a potential danger to public health).				
2.3	Has there been a contamination assessment for workforce safety				

		Pre-tender	Comments at tender settlement	Pre-commencement review project no.	Additions/changes at construction phase
	by the CDM Coordinator, or by the company?				
<b>3.0</b>	<b>Baseline Studies (required at Commencement Stage).</b>				
3.1	Will baseline water quality measurements be required?				
3.2	Will baseline vibration levels be required?				
3.3	Will baseline noise levels be required?				
3.4	Are there any limits on noise levels at different times of day and weekends?				
3.5	Will baseline air quality measurements be required?				
3.6	Will air quality monitoring procedures be required?				
<b>4.0</b>	<b>Traffic Management</b>				
4.1	Will a construction traffic management plan be required, restricting traffic to principal roads to reduce the impact on the local community?				
<b>5.0</b>	<b>Waste</b>				
5.1	Has the type of waste been defined in the Contract documents?				
<b>6.0</b>	<b>Previous site use</b>				
6.1	Is information on the layout of the site, above and below ground (including roads, storage areas, existing buildings, pits and				

		Pre-tender	Comments at tender settlement	Pre-commencement review project no.	Additions/changes at construction phase
	services, such as gas, water, electricity, drains and sewers) available?				
6.2	Are there any indications of the presence of waste disposal tips, abandoned pits, quarries or mine shafts?				
<b>7.0</b>	<b>Contamination</b>				
7.1	Do records of the previous site use, such as the processes used, waste residues and methods of disposal, indicate the possibility of contaminants?				
7.2	Do records, such as published maps, plans and photographs, indicate the possibility of contaminants?				
7.3	Do records of past history, such as details of its uses, owners or occupiers, indicate the possibility of contaminants?				
7.4	What is the likelihood of finding contaminants that may affect the construction activities?				
7.5	Do we need a Desk Top Survey?				
7.6	Is information on Geology and Hydrogeology, including the depth of groundwater and presence of surface water available?				
<b>8.0</b>	<b>Special Environment and Ecology/Heritage Restrictions</b>				
8.1	Do records indicate any listed or protected buildings on or in the vicinity of the site?				
8.2	Does the project entail work on a Listed Building? If yes, a Listed Building Consent will be required?				

		Pre-tender	Comments at tender settlement	Pre-commencement review project no.	Additions/changes at construction phase
8.3	Is the site within a Conservation Area? If yes, a Conservation Area Consent may be required?				
8.4	Is there any evidence of the existence of protected species (plant and animal) on the site?				
8.5	Is there any restriction on the removal of vegetation that may affect the programme, e.g. breeding birds?				
<b>9.0</b>	<b>Relevant Legislation</b>				
9.1	Has a schedule of applicable environmental legislation been drawn up for the project?				
9.2	Is a Trade Effluent Consent required for discharging trade effluent to the public sewer? If yes, apply for consent from the relevant sewerage undertaker in England and Wales or the water authorities in Scotland.				
9.3	Has the local authority been contacted with regards to a section 61 Prior Consent Control of Pollution Act 1974?				
9.4	Is there a need to store waste on site? If yes, check whether a Waste Management Licence is required from EA/SEPA? (In accordance with Waste Management Licensing Regulations 1994)				
9.5	Is there a copy of 'Certification of Registration under the Control Pollution (Amendment) Act 1989' on site?				
9.6	Confirm that only Company Approved Registered Waste Carriers are referenced when tendering.				
9.7	Has consent been sought to discharge to the foul sewer? (e.g. Temporary Welfare)				

		Pre-tender	Comments at tender settlement	Pre-commencement review project no.	Additions/changes at construction phase
9.8	Is there a requirement for Demolition? If yes, is a Demolition Licence required?				
9.9	Has consent been sought to discharge to the surface water?				
9.10	Is there a requirement for Air Quality Monitoring?				
<b>10.0</b>	<b>Site Visit Observations</b>				
10.1	Have details of structures above and below ground, including foundations, tanks and pits been inspected and recorded?				
10.2	Is there evidence of any fill material or made ground, such as sparse, or absent vegetation?				
10.3	Have details of any signs of settlement, subsidence and disturbed ground been recorded?				
10.4	Have details of any materials such as slag, ashes, asbestos, scrap and industrial or chemical waste been recorded?				
10.5	Have the uses of adjacent premises been noted, especially if they may have contaminated the site?				
10.6	Has the use of adjacent premises, for the location of the temporary site offices, fuel storage, plant use etc. been considered?				
10.7	Have possible locations, within the site area, for the temporary site offices been recorded and location of fuel and oil storage including bulk containers?				
10.8	Have possible locations for the temporary site access been recorded?				

		Pre-tender	Comments at tender settlement	Pre-commencement review project no.	Additions/changes at construction phase
10.9	Are any further site investigations, such as trial pits, boreholes, samples for geotechnical/chemical analysis required?				
10.10	Are any further ecological surveys/studies required?				
10.11	Have the surface water and foul water drains been identified and recorded?				
10.12	Is there or will there be a possible requirement for additional Environmental Security arrangements, e.g. Internal Security Fencing?				
<b>11.0</b>	<b>Waste</b>				
11.1	Has the option of prefabricated/modular construction off site been considered to reduce waste?				
11.2	Have recycled materials been considered as an alternative e.g. crushed concrete for fill, glass for road construction etc.?				
<b>12.0</b>	<b>Plant Selected to Minimise Noise, Dust and Vibration</b>				
12.1	Will baseline vibration levels be required?				
12.2	Will the source of vibration be continuous or intermittent?				
12.3	Are limits or controls required?				
12.4	Are there any sensitive receptors in the vicinity of the site?				
12.5	Are contingency arrangements required?				

		Pre-tender	Comments at tender settlement	Pre-commencement review project no.	Additions/changes at construction phase
12.6	Will monitoring and reporting procedures be required?				
12.7	Will any special procedures and precautions need to be taken during site operations?				
12.8	Will onsite haul roads be black topped or damped down to reduce dust?				
12.9	Will a wheel wash be required?				
<b>13.0</b>	<b>Others</b>				

### Appendix Form 3

#### Environmental Risk Assessments

Site Location .....Date.....

Use the left-hand box to indicate whether the question is relevant i.e. Yes, No, N/A If the question is relevant, quantify the level of risk by checking the appropriate box i.e. Minimal, Moderate or Significant.	Minimal	Moderate	Significant
<input type="checkbox"/> Have environmental issues been included on a site set up risk assessment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Has permission been granted by the environmental regulator or relevant body to discharge water and effluent from the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Is drainage identifying foul and surface water drainage accessible?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Have nearby rivers, streams or groundwater etc, been identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Are drains, etc, appropriately marked to distinguish them?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Are fuel bunds and/or double skinned tanks provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Is a waste storage area provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Has dewatering and disposal of water been considered?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Is the site adequately protected against vandalism, theft and breakage?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Is a wheel wash or road cleaning equipment provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Is/are a designated haul route(s) indicated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Have environmental issues been included in the site induction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Are site personnel aware of the spill response procedure and storage issues?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control measures:			

Signed: .....

## Things to consider for site drainage:

There are generally three types of drainage on site:

1. Surface water drains are designed to carry uncontaminated rainwater directly to a stream, river or soakaway, which may be some distance from the site.
2. Foul water drains are designed to carry foul water directly to a sewage works for treatment before being discharged to a watercourse.
3. Soakaways
  - Existing and constructed site drainage plans should be readily accessible.
  - Clearly distinguished between the surface and foul manhole covers and gullies on site and mark them appropriately.
  - **Nothing** should be allowed to enter surface water drains, except clean rainwater. Material and plant should not be stored near drains (eg stockpiles, fuel, paint, pumps, and generators).
  - Even if described as bio-degradable, detergents are not suitable for discharge to surface water drains. Use of detergents should be carried out in designated areas draining to the foul sewer.
  - It is **ILLEGAL** to discharge into foul sewers without agreement from the sewerage undertaker.

### **REDUCE WATER USAGE**

- Construct temporary and permanent drainage works as early as possible to divert surface water away from the earth works operations.
- Divert clean surface water away from bare ground using trench drains.
- Prevent surface water entering excavations – use sand bags or similar.
- Minimise groundwater ingress into excavations.

### **REUSE WATER**

- If settlement facilities are being used on site, use water from them to damp down haul roads in dusty conditions.
- Use water from settlement facilities to wash out concrete lorries.

### **RECYCLE WATER**

- Recycle water used in concrete batching plants.
- Recycle water in wheel washes.

*(Continued overleaf)*

Site Location .....Date.....

	Use the left-hand box to indicate whether the question is relevant i.e. Yes, No, N/A If the question is relevant, quantify the level of risk by checking the appropriate box i.e. Minimal, Moderate or Significant.	Minimal	Moderate	Significant
<input type="checkbox"/>	Is the site drainage plan up to date and accessible?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are foul and surface drain types appropriately marked and known to site personnel?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	In wet weather is site runoff contained and not directly entering a watercourse or surface water drain?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are materials and plant stored away from all drains? (eg stockpiles, fuel, paint, pumps, generators).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control measures:				

Signed:.....

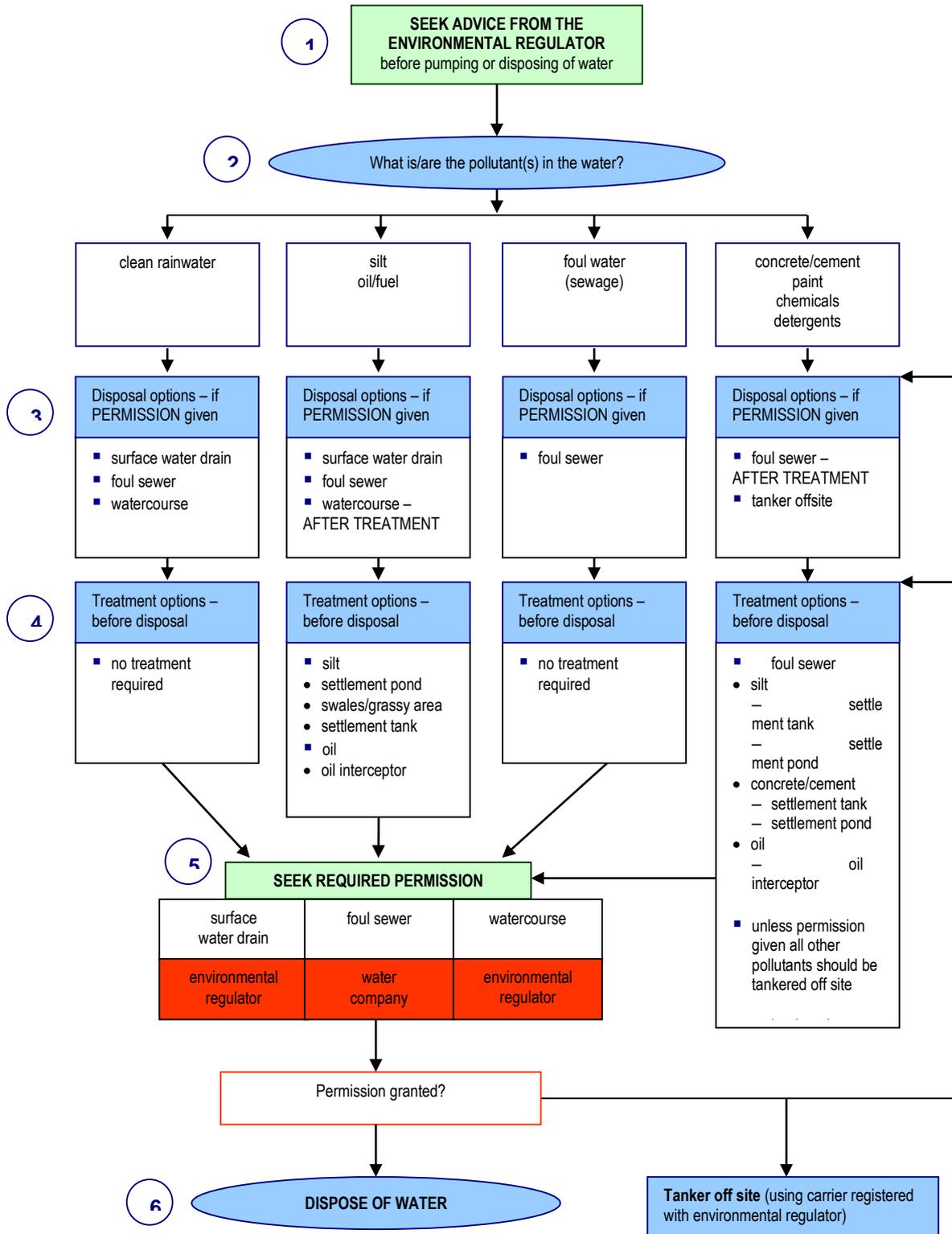
## Things to consider when treating on-site water:

- The main pollutants from construction are SILT, Fuel/OIL, CONCRETE and CHEMICALS. These could come from general site runoff, pumping out excavations and spills for example.
- It is ILLEGAL to put any polluting matter into controlled waters without obtaining permission from the environmental regulator. Controlled waters include rivers, streams, coastal waters, ponds, lakes, lochs, docks, and groundwater.
- Prior to discharge, even to foul sewer, ALL site water may require treatment by one or a combination of simple methods.
- Silt can be removed by:-
  - settling out in a tank, ponds or lagoons, AND/OR
  - allowing it to infiltrate through a large area a grassy ground, geotextile filters, straw bales or a skip containing fine aggregate.
  - Chemical treatment with flocculants
- Where sustainable draining systems (SUDS) such as ponds are to be part of the completed construction, consider installing these at the outset and utilising them as a means of treating silt laden waters during construction.
- Use a silt removal method that will cope with the volume of water, concentration and type of silt (chalk/clay etc) – water should be kept as still as possible. Around two or three hours retention time is generally required to reduce suspended solids. Finer materials will take longer to settle.
- Oil and concrete should NOT enter site water in the first place.
- Prevent oil pollution by using:
  - Suitable bunded storage of fuel/oil, and use of drip trays under plant AND
  - An oil separator (if a permanent interceptor is required, consider installing it as early in the works as possible, or install a temporary one), AND/OR
  - Commercially available absorbent granules, pads or booms.
- Wet concrete pollution is silty and very alkaline (high pH), which can have a serious effect on watercourses, consider treating by the following before disposal:
  - Settling out in settlement tank, pond or lagoon, AND/OR
  - Chemical treatment to adjust the pH prior to disposal – specialist advice is required as the treatment itself can cause harm to the receiving watercourse.
  - Diluting with clean rainwater from site cabin or building roofs can also adjust pH.
  - Chemical testing is likely to be required to confirm the pH before disposal. Simple paper pH kits are readily available, cheap and easy to use.
- Follow the flowchart overleaf to determine how to treat and dispose of site water.
- Inspect discharges regularly to check treatment is effective.
- Clean out settlement facilities and outlets etc regularly – consider implementing a maintenance scheme.

*(Continued overleaf)*



# Treatment of site water checklist



### Things to consider when disposing of site water:

- Where contamination waters are to be disposed of from construction sites the operator should consider the availability and access to foul sewers as a first option.
- It is ILLEGAL to discharge to the foul sewer without permission (see the flowchart on treatment of site water to determine who permission is required from).
- Clean water ONLY can be discharged to surface water drains/sewers, as they may outfall into a watercourse, possibly some distance from the site. The source can easily be traced back. Permission is required from the sewerage undertaker first to check that surface water sewers and pumping stations have capacity to take the volume.
- It is ILLEGAL to put any polluting matter into controlled waters without obtaining permission from the environmental regulator. Controlled waters include rivers, streams, coastal waters, ponds, lakes, lochs, docks, and groundwater.
- DO NOT discharge anything to a watercourse without consent from the environmental regulator.
- Care should be taken to discharge to watercourses at a rate that DOES NOT ERODE the bank or bed of the watercourse mobilising silt. Consider more than one discharge point. If a settlement tank is being used to treat water, ensure that the flow rate of the water will allow settlement.
- Prior to discharge, even to foul sewer, ALL site water may require treatment by one or a combination of simple methods.
- Follow the flowchart provided in the treatment of site water section to determine appropriate treatment and disposal routes.
- Inspect discharges regularly to check for signs of pollution, monitor flow rates and check that the correct disposal route is being used (foul sewer/surface drain/designated disposal point). You may need to carry out monitoring of sediment/chemical loads to ensure that the discharge complies with the consent(s).
- Where not connected to foul sewer, sewage (from portable toilets, etc) should be disposed of under Duty of Care and not through site surface drainage (unless a consent has been given) or direct to a watercourse.

*(Continued overleaf)*

Site Location ..... Date .....

	Use the left-hand box to indicate whether the question is relevant i.e. Yes, No, N/A  If the question is relevant, quantify the level of risk by checking the appropriate box i.e. Minimal, Moderate or Significant.	Minimal	Moderate	Significant
<input type="checkbox"/>	Is there any visible sign or smell of pollution in watercourses at or near the site (if applicable)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is the water treatment method effective?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is the water discharged from the site silty or discoloured?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is there an oily sheen visible on site discharge?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is there oil visible in water storage areas, eg pond/lagoon?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	If a settlement tank is used, is water moving too fast and/or is it overflowing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are straw bales and/or oil absorbent materials securely fixed, if used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Do any oil absorbent materials require replacing, if used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is any sediment/chemical monitoring required to comply with discharge consents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are outfalls and pipework clean and clear of litter etc?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	If a flow meter is required to monitor discharge or dewatered volumes what is the reading?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control measures:				

Signed: .....

## Things to consider when storing materials and waste on site:

- Has the requirements of site waste management plan legislation been complied with
- Consider whether large volumes of polluting materials need to be stored on the site. Can the material be delivered to site in quantities that can be used on the day delivered, or delivered at a rate that prevents a large volume building up on site?
- Consider whether potentially polluting materials can be eliminated from the process, for example work such as painting or stripping beams could be undertaken off site or alternative processes may be suitable.
- Use material safety data sheets to identify potentially polluting materials, this information will also identify how these materials should be stored.
- Make sure that appropriate spill response equipment is proportionate to fuel quantities and located near to the material should containment fail or material be spilled and ensure site staff know how to use it.
- Consider the correct disposal route for waste materials (Duty of Care), check to see if they can be reused or recycled but ensure they are stored safely on site prior to disposal. Cover skips to prevent litter being blown out. Label skips.
- Consider establishing a central store location away from sensitive areas of the site such as rivers, streams, drainage or settlement facilities. Identify how pollution could occur and what measures should be implemented to reduce the likelihood of water pollution. Protect stores from flooding where required (eg if the site is near a river or on the floor plain).
- Ensure stores are adequately protected and secured against trespassers and vandalism.
- Regularly check to see what materials are in stock. Store drums, oil and chemicals on an impervious base and within a secured bund. Keep lids on. Always store containers upright unless using flow control taps for controlled pouring from barrels and drums.
- Raise the awareness of safe storage and disposal of materials on site using the toolbox talk type training method.
- Consider appointing a site champion to give out instructions on the safe storage of materials to personnel booking out material from the store compound and the implementation of the site waste management plan.
- Ensure topsoil and/or soil heaps are located at least 10m away from water courses (regulator may vary this distance), consider seeding them or covering with a tarpaulin to prevent silty runoff and losses due to wind. Consider constructing a stilt fence at the base of the pile using a suitable geotextile.

*(Continued overleaf)*

Site Location ..... Date .....

	Use the left-hand box to indicate whether the question is relevant i.e. Yes, No, N/A  If the question is relevant, quantify the level of risk by checking the appropriate box i.e. Minimal, Moderate or Significant.	Minimal	Moderate	Significant
<input type="checkbox"/>	Are all containers of materials eg, oils, paints, chemicals etc stored in a bunded area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is/are the areas(s) clearly marked?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are materials stored in suitable containers that are appropriately labelled with fitted lids, taps and tops in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are there control measures and/or spill response kits/material located near to bulk store, accessible and in appropriate quantities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is material stored so as to guard against breakage or vandalism (vehicle movements, corrosion or theft)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are stores protected against flood damage or inundation (eg is site within flood plain etc)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is waste stored in a designated area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is the waste storage area in good condition and contained to prevent rainwater infiltration?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are stockpiles causing silty run off?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are stockpiles too steep and/or stored near drains or watercourses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control measures:				

Signed: .....

### Things to consider when managing silt:

- The most common form of water pollution from construction is suspended sediments – more commonly known as silty water, muddy water, or dirty water.
- Silt also carries other contaminants such as oil and chemicals.
- Silt pollution is easily identified by discoloration of the water.
- Do not pump silty water to watercourse.
- Do not strip more land than is needed.
- Divert clean water away from bare ground.
- Divert silty water away from drains and watercourses using sand bags for example.
- Consider alternative de-watering methods eg sump pumping.
- Plan for the treatment of silty water when pumping out excavations or managing surface water runoff.
- Regularly check nearby water courses for silt pollution.
- Silt can be removed by:
- Setting out in settlement tank, pond or lagoon, AND/OR
- Allowing it to infiltrate through a large area of grassy ground, geotextile filters, straw bales or a skip containing fine aggregate
- Chemical treatment with flocculants (advice from a specialist and environmental regulator required)
- Use a silt removal method which will cope with the volume of water, silt concentration and silt type (chalk, clay etc) – water should be kept as still as possible. Around two to three hours retention time is generally required to reduce suspended solids, finer materials will take longer to settle. Ensure that water flowing through these systems is moving slowly enough to allow the sediment to settle out and that the systems do not overflow.
- Consider providing wheel wash facilities and/or methods to keep haul routes and accesses free from mud and dust to minimise silty runoff. Contain the water and dispose of it correctly.

*(Continued overleaf)*

Site Location ..... Date .....

	Use the left-hand box to indicate whether the question is relevant i.e. Yes, No, N/A  If the question is relevant, quantify the level of risk by checking the appropriate box i.e. Minimal, Moderate or Significant.	Minimal	Moderate	Significant
<input type="checkbox"/>	Is there a regular check of water courses being done (if applicable)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is there any visible sign of discolouration in watercourses (if applicable) at or near the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is water discharged from the site silty or discoloured?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is the surface water runoff directly entering a watercourse or drain?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is any water treatment method (if applicable) effective?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	If a settlement tank is used, is water moving too fast and/or is it overflowing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are straw bales securely fixed, if used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control measures:				

Signed: .....

## Things to consider when storing and using fuel and oil:

- Work activities which include the use of fuels need to conform to The Control of Pollution (Oil Storage) Regulations 2001
- Consider whether fuel storage is needed on site, how much is to be stored and how in large tanks, small stores or a mobile-bowser.
- Check whether the main contractor, if applicable, has fuel storage requirements, and ensure your procedures follow them.
- Risk/CosHH assess the fuel/oil storage location identifying potential routes for pollution should containment fail.
- Fuel/oil stores must be located away from the site drainage system and the edge of watercourses. If this is not possible, ensure adequate measures are identified to prevent or contain any spillage such as creating a fall away from any drainage grid or blocking drainage points.
- Fuel/oil stores must be located in an area away from vehicle movement to prevent collision.
- Fuel/oil storage must be sited on an impermeable base within a bund to contain at least 110 per cent of the maximum capacity. See Environment Agency PPG 2 and 26 for a standard fuel storage design). All ancillary equipment (valves, hoses, etc) should be contained securely within the bund when not in use. Ensure that tanks are properly labelled as to their contents and capacities.
- Keep a store of spill response equipment at the fuel facility and bowzers, if necessary locate a sign telling the operator what to do in the event of a spillage and where the nearest spill response kit is located (see the section on spill response for further advice).
- Consider protecting the fuel bund from rainwater – this can be achieved by building a scaffold lean-to or other appropriate sheeted or enclosed structure.
- Guard facilities against vandalism and theft, ensure that hoses are not vulnerable to being tampered with or cut for unauthorised access; the facility should be locked off when not in use.
- Use drip trays under all static plant such as pumps and generators and during refuelling from mobile plant and empty them regularly into an appropriately contained area (main fuel bund or designated bowser) for disposal off-site.
- Ensure that the facilities are checked on a regular basis to ensure any leaks or drips are fixed to prevent loss and pollution, also consider small plant such as petrol cutters and plate compactors
- Fuel/oil deliveries should be supervised by a designated person.
- Bulk fuel stores must be clearly marked as to their content to help prevent delivery personnel mixing fuel types. Check there is enough capacity in the tank before a fuel delivery.

*(Continued overleaf)*

Site Location ..... Date .....

	Use the left-hand box to indicate whether the question is relevant i.e. Yes, No, N/A  If the question is relevant, quantify the level of risk by checking the appropriate box i.e. Minimal, Moderate or Significant.	Minimal	Moderate	Significant
<input type="checkbox"/>	Is the bund in good condition with no cracks or evidence of leakage, particularly at corner points?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is the bund free from excessive rainwater and debris build-up?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are all tank components (hose, valves etc) contained within the bund?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are there any leaks from the hoses, joints or valves on the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is the facility locked off when not in use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is the fuel/oil facility appropriately labelled as to its content and capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is the fuel/oil facility guarded against vehicle damage?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are spill response material and emergency instructions located nearby and readily accessible by the operator?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is the spill response material in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Have spills been effectively managed, if necessary, including disposal of absorbent materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are drip trays in place beneath all un-enclosed plant?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Do the drip-trays need emptying / do they overflow in rainy weather?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control measures:				

Signed: .....

### Things to consider then using concrete, cement or bentonite:

- Concrete, cement and bentonite are highly alkaline and corrosive and can have a devastating impact on watercourses.
- Take particular care with all works involving production, transport and placement of concrete, cement or bentonite especially if working near a river, stream or surface water drain and ensure operations are planned and supervised.
- Use methods to minimise grout loss during shuttered pours.
- Place covers over freshly poured concrete to prevent the surface washing away in heavy rain.
- Do not hose down spills of concrete, cement or bentonite into surface water drains.
- Washout of concrete, cement or bentonite mixing plant or ready-mix lorries and equipment should be carried out in a designated impermeable contained area.
- Washout water must not be allowed to flow into any drain or watercourse. If necessary protect nearby drains from receiving washout water.
- Try to reuse washout water as much as possible, and then dispose of it by tinkering off site in accordance with Duty of Care or discharging to foul sewer with agreement from the sewerage undertaker.
- Washout water, surface water, runoff and water from excavations may require adjustment of the pH in a lagoon prior to discharge due to the alkaline cement – obtain specialist advice from the environmental regulator as acid conditions can also have serious effect on watercourses.
- If a concrete or bentonite batching plant is used, re-circulate the water used in it.
- Ensure bentonite lagoons are adequately contained to avoid leakage.

*(Continued overleaf)*

Site Location ..... Date .....

	Use the left-hand box to indicate whether the question is relevant i.e. Yes, No, N/A  If the question is relevant, quantify the level of risk by checking the appropriate box i.e. Minimal, Moderate or Significant.	Minimal	Moderate	Significant
<input type="checkbox"/>	Are measures being used to protect drains and watercourses from liquid concrete, cement or bentonite?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are concrete lorries washing out in the designated area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is the designated area away from drains and watercourses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is the washout being suitably contained?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Does the washout area require pumping out to taker (or foul sewer if agreement from sewerage undertaker is given)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control measures:				

Signed: .....

### Things to consider when working in or near watercourses:

- Working over or near to watercourses carries additional concerns due to the risk of pollutants directly affecting water quality.
- Avoid entry into water where possible. Stabilise routes used for construction traffic or construct a temporary bridge or culverted crossing.
- Plant work in or near the watercourse should be well maintained and regularly checked.
- Consider erecting barriers on crossings or around working areas, eg bridge cleaning, to prevent excessive amounts of dust and spray entering the watercourse.
- An impervious bund (i.e. cofferdam) should be constructed around works in a watercourse to prevent water entering the area of works. Additionally, no water should be allowed to escape from the cofferdam into the watercourse during works.
- If working adjacent to a watercourse, ensure that a suitable method for containing any surface water is provided (eg cut off ditches and interceptors).
- Avoid siting cabins, containers, workshops, plant materials stores and storage tanks on the floodplain of watercourses.
- The risk of fuel spillage is greatest during refuelling activities. No refuelling should be undertaken in, over, or adjacent to watercourse. Refuel plant in a designated area at least 10m away from the watercourse.
- Consider using biodegradable oils when working in or near watercourses.
- Adequate stocks of absorbent materials, such as sand or commercially available spill kits and booms, should be available at all times. Establish spill response stations.
- Use of wet concrete and cement in or close to any watercourse should be carefully controlled. The use of quick setting mixes may be appropriate. Prevent concrete pumps, lorries and skips from slewing over water while placing concrete.

*(Continued overleaf)*

Site Location ..... Date .....

	Use the left-hand box to indicate whether the question is relevant i.e. Yes, No, N/A If the question is relevant, quantify the level of risk by checking the appropriate box i.e. Minimal, Moderate or Significant.	Minimal	Moderate	Significant
<input type="checkbox"/>	Is any material, plant, plant movement etc within <b>10m</b> "buffer zone" (environmental regulator may vary this distance) from edge of watercourse (where NOT undertaking works on the banks eg bridge works)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	If using a cofferdam to retain water, it is in good condition and working effectively?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is the watercourse silty or discoloured downstream of the works? Is there an oily sheen visible on water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is enough emergency spill response material nearby?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are all staff aware of the location of spill kits and know how to use the kits properly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are approach ways to the watercourse kept free from build up of mud?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are the banks or bed of the watercourse being affected outside the area of works due to water pumping or vehicle movements etc?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are any spray, dust or other airborne materials entering the watercourse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control measures:				

Signed: .....

## Things to consider when working on demolition sites:

- Is there a requirement to conform to The Site Waste Management Plan Regulations 2008
- Can materials be reused as part of the site waste management plan
- Identify all tanks and pipelines both above and below ground before work begins.
- Identify and mark out all existing live/redundant services (eg water mains, sewers and storm drains). Be aware of the routes for surface water, foul water, and trade effluent.
- Before removing or perforating tanks or pipelines check that all of their contents and residues have been emptied by a competent operator for safe disposal (Duty of Care). Pipes may contain significant quantities of oil or chemicals, and should be capped, or valves closed to prevent spillage.
- Identify and label all drums and containers of waste materials.
- Consider establishing a bunded central store location for waste materials away from sensitive receptors such as watercourses, drainage or settlement facilities.
- Store drums, oils and chemicals on an impervious base and within a secure bund.
- Consider the correct disposal route for waste materials (Duty of Care), check if they can be reused or recycled but ensure they are stored safely on site prior to disposal.
- Cover skips to prevent litter being blown out. Label skips to distinguish general and hazardous (eg oily) wastes.
- Identify any contaminated ground and/or groundwater at the site. Ensure it is controlled and handled appropriately (Health and Safety, Duty of Care).
- If contaminated materials are encountered seek specialist advice before carrying on.
- Consider damping down the site to prevent dust blowing into watercourses. Prevent silty runoff due to damping down or rainfall from entering watercourses (see the section on silt).
- Ensure all plant and equipment is well maintained to prevent leakage and store away from watercourses.
- Ensure you have sufficient types and quantities of spill response equipment available on site.

*(Continued overleaf)*

Site Location ..... Date .....

	Use the left-hand box to indicate whether the question is relevant i.e. Yes, No, N/A  If the question is relevant, quantify the level of risk by checking the appropriate box i.e. Minimal, Moderate or Significant.	Minimal	Moderate	Significant
<input type="checkbox"/>	Have all underground tanks, pipes and services been located and their locations marked?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are tanks etc appropriately labelled as to their content and capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is there any visible sign of leaking tanks or pipes etc?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is there any visible sign of contaminated ground or ground water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are all waste materials being stored in suitable labelled containers in designated area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is dust being generated by site activities? If so, is a bowser or other source of water available?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is dust or other materials entering a watercourse, (if applicable)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Is runoff from the site adequately prevented from entering watercourses or soakaways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Are spill response materials and emergency instructions located nearby and readily accessible?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control measures:				

Signed: .....

## SPILL RESPONSE

### Things to consider for spillage response procedure:

- Follow the response procedure overleaf. If the client or main contractor already has a spill response procedure in operation, integrate into that.
- Inform all personnel about the spill response procedure through toolbox talks and/or construction projects.
- Use reminder posters identifying the key essential elements of the spill response procedure, located in appropriate areas such as fuel storage areas, mess cabins, security points or on the back of toilet doors.
- In the event of a significant spill contact the hotline for the Environmental Agency. Scottish Environmental Protection Agency and Northern Ireland Environmental and Heritage Service 0800 807060.
- Know names and telephone numbers of others you need to inform (includes alerting people out of hours) and who should contact them:
  - Client
  - Regulators
  - Water Company
  - Neighbours
  - Other stakeholders
- Consider a professional 24 hour call-out clean-up service. Names and numbers of companies are available from the local environmental regulator.
- Ensure you have sufficient types and quantities of spill response equipment available on site. Keep spill kits where spills may occur, eg at refuelling points or on plant working near a watercourse.
- The material safety data sheets and COSHH assessments will assist in identifying appropriate spill measures for dealing with hazardous materials.
- Dispose of used response material appropriately, eg oily granules or pads should be bagged up and placed in the designated special waste skip.

	<i>Pollutants</i>				
	Concrete/ Cement	Paints	Oils	Silt	Detergents
<i>Spill on ground</i>					
Sand	✓	✓	✓	x	✓
Straw bales	x	x	✓	✓	x
Absorbent granules	x	x	✓	x	x
Geotextile fence	✓	x	x	✓	x
Drip Trays	x	✓	✓	x	x
Pad rolls	x	x	✓	x	x
Drain seat	✓	✓	✓	✓	✓
Earth bunds	✓	✓	✓	✓	✓
<i>Spill in Water</i>					
Straw bales	x	x	✓	✓	x
Pads/rolls	x	x	✓	x	x
Booms	x	x	✓	x	x
Stop further spill contain and inform	✓	✓	✓	✓	✓

environmental immediately	regulator					
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(Continued overleaf)

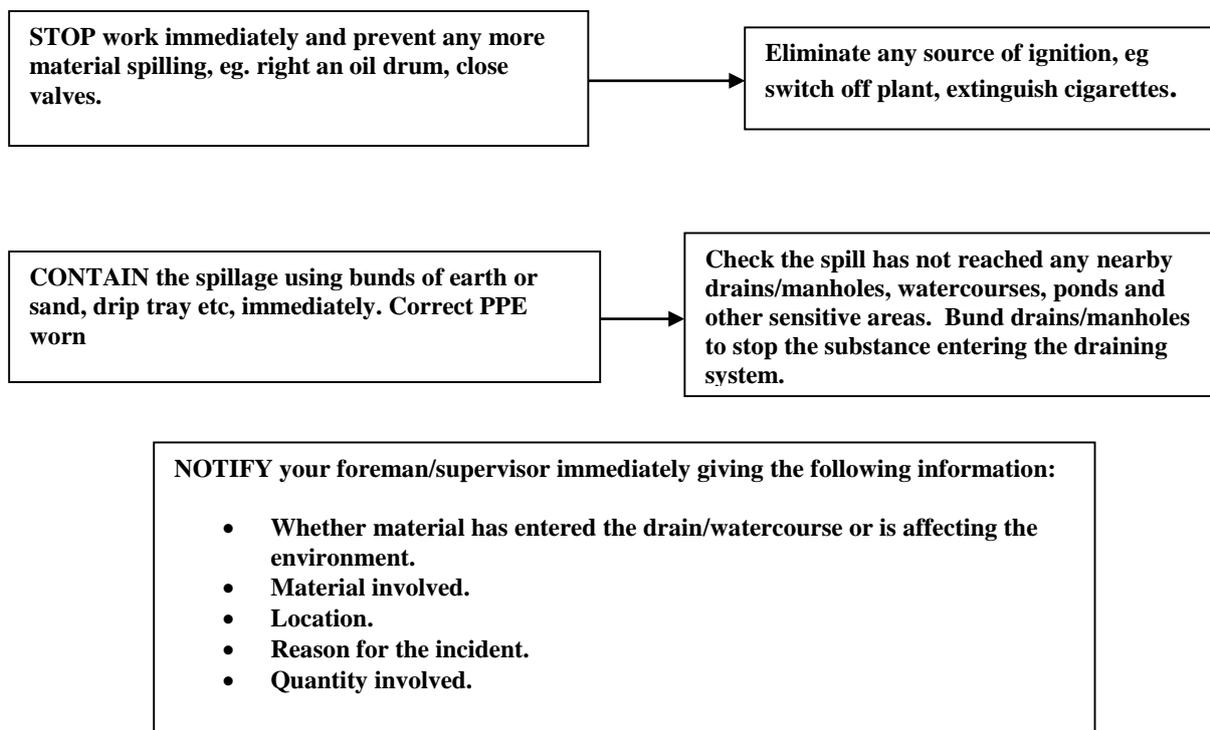
## Checklist

Site Name:

### Spillage Response Procedure

What to do if you find a spillage of any substance on site:

STOP	CONTAIN	NOTIFY
------	---------	--------



<b>MAJOR</b>	Cannot be controlled; pollution has entered, or could enter a drain or watercourse. Report to foreman/supervisor immediately.
<b>MINOR</b>	Can be controlled; pollution has not entered, and cannot enter a drain or watercourse.

<b>MAJOR</b>	Contain and report immediately to contact detailed below
<b>MINOR</b>	Clean up immediately using appropriate materials (granules, pads etc)

Environmental Agency, Scottish Environmental Protection Agency, Northern Ireland Environmental and Heritage Service.



## Appendix Form 4

### Register of Legislation

#### Environmental Law Applicable in England and Wales, Scotland, and Northern Ireland

England and Wales	Scotland	Northern Ireland
Part 1 EPA 1990; SI 1991/472 (as amended)(IPC)	IPC (Scotland) 1992	IPC (NI) Order 1997
PPC (England and Wales) Regulations 2000; SI 2000/1973	The Pollution Prevention and Control (Scotland) Regulations 2000; SI 2000/323	Pending
The Water Resources Act 1991 as amended	The Control of Pollution Act 1974 (S30A-30E equiv. To Part III WRA91) The National Heritage (Scotland) Act 1991 (Part 11 equiv to Part 1 WRA91)	The Water (NI) Order 1999
SI 1989/2286 and 1992/337 the Surface Waters (Dangerous Substances Classification) Regulations and 1990 & 1993 Direction for List 1 substances are contained in SI 1997/2560 and SI 1998/389)	Surface Water (Dangerous Substances) (Classification) (Scotland) Regulations 1990 (SI 1990/126)	Surface Waters (Dangerous Substances) (Classification) Regulations 1998. Northern Ireland 1998 No 397 SI 1991/1597
SI 1991/1597: Bathing Waters (Classification) Regulations and 1991 Direction	The Bathing Water (Classification) (Scotland) Regulations (SI 1991/1609)	The Quality of Bathing Water Regulations (NI) 1997
SI 1997/1331 Surface Waters (Fishlife) (Classification) Regulations and 1997 Direction	The Surface Waters (Fishlife) (Classification) (Scotland) Regulations 1997 (SI 1997/2471)	The Surface Water (Fishlife) (Classification) Regulations (NI) 1997
SI 1997/1332 Surface Waters (Shellfish) (Classification) Regulations and 1997 Direction	The Surface Waters (Classification) (Scotland) Regulations 1997 (SI 1997/2470)	The Surface Water (Shellfish) (Classification) Regulations (NI) 1997
Environmental Protection Act 1990 Part 11A (England and Wales)	Environmental Protection Act 1990 Part 11A (Scotland)	Environmental Protection Act 1990 Part 11A (Northern Ireland)
Contamination Land (England) Regulations 2000 (Wales) 2001	Contamination Land (Scotland) 2001 Regulations SS1 178	Waste and Contaminated Land Part 111 (Northern Ireland) Order 1997
Environmental Protection Act 1990 Part 11 (England and Wales). Environmental Protection (Duty of Care) Regulations 1991 (SI	Environmental Protection Act 1990 Part 11 (Scotland). Environmental Protection (Duty of Care) Regulations 1991 (SI 1991/2839)	Waste and Contaminated Land (NI) Order 1997 – Northern Ireland

1991/2839) (England and Wales)		
SI1996/972 Special Waste Regulations 1996 (England and Wales)	The Special Waste Regulations 1996 (SI 1996/972)	Waste and Contaminated Land (NI) Order 1997 – Northern Ireland
SI1999/1361 & SI 1999/3447 Producer Responsibility Obligations (Packaging Waste) Regulations 1999 (Packaging Regulations 1999 Waste)	The Producer Responsibility Obligations (Packaging Waste) (Amendment) Regulation 1999 (SI 1999/1361 and the Producer Responsibility Obligations (Packaging Waste) (Amendment) (No.2) Regulations 1999 (SI 1999/3447)	Producer Responsibility Obligations (Packaging Waste) Regulations 1999 (SI No 1361 and SI No 3447)
SI 1989/317: Clean Air, The Air Quality Standards Regulations 1989	The Air Quality Standards Regulations 1989 (SI 1989/317)	The Air Quality Standards Regulations (Northern Ireland) 1990. Statutory Rules of Northern Ireland 1990 No 145
SI1997/3043: Environmental Protection. The Air Quality Regulations 1997	The Air Quality (Scotland) Regulations 2000 (SSI 2000/97) (as amended by the Air Quality (Scotland) Regulations 2002 (SSI 2002/2971)	No NI equivalent
SI 1994/2716 Conservation (Natural Habitats, &c) Regulations 1994 SI2000/192 Conservation (Natural Habitats, &c) (Amendment) (England Regulations)	The Conservation (Natural Habitats etc) Regulations 1994 (SI 1994/2716)	Conservation (Natural Habitats etc) Regulations (Northern Ireland) 1995
SI 1997/743 Control of Major Accident Hazards Regulations 1999 (COMAH)	The Control of Major Accident Hazards Regulations 1999 (SI 1999/743) 2000 for NI	Control of Major Accident Hazards Regulations (Northern Ireland)
Control of Pollution (Oil Storage) (England) Regulations 2001		
The Hazardous Waste (England and Wales) Regulations 2005 (HWR)		
The Site Waste Management Plan Regulations 2008		

**Note – The above information is current at 20<sup>th</sup> March 2009**

## Appendix Form 5

### *Annex B:*

European Waste Catalogue Codes for the most common types of construction waste  
(Source: Environment Agency Wales - A survey on the arising and management of Construction and Demolition waste in Wales 2005-06, due to be published)

#### EWC Waste Description

- 13 01 10\* Used mineral hydraulic oil (non-chlorinated)
- 13 02 04\* Waste engine, gear or lube oil (chlorinated)
- 13 02 05\* Waste engine, gear or lube oil (non-chlorinated)
- 13 02 08\* Other waste engine, gear or lube oil
- 13 08 99\* Other waste oils e.g. oily gully/drain sludge
- 14 06 01\* Chlorofluorocarbons e.g. refrigerant coolant
- 15 01 01 Cardboard or paper packaging
- 15 01 02 Plastic packaging e.g. toner & ink cartridges, polythene sheeting
- 15 01 03 Wooden packaging e.g. timber pallets
- 15 01 04 Metallic packaging e.g. drink cans, paint tins
- 15 01 10\* Packaging containing dangerous substances e.g. old paint & chemicals tins
- 15 01 11\* metallic packaging containing a dangerous solid porous matrix (e.g. asbestos)
- 15 02 02\* Absorbents, filter materials, wiping cloths, clothing contaminated by dangerous substances
- 16 01 03 Tyres
- 16 01 07\* Oil filters
- 16 01 15 Antifreeze fluids that do not contain dangerous substances e.g. Coolants
- 16 01 17 Ferrous metal from vehicles e.g. car parts
- 16 02 13\* Hazardous waste electricals e.g. TVs, white goods, printed circuit boards
- 16 02 14 Non hazardous waste electricals e.g. washing machines, power tools
- 16 05 05 Gases in pressure containers i.e. gas cylinders
- 16 06 01\* Lead batteries
- 16 07 08\* Oily waste from transport and storage tanks
- 16 10 01\* Hazardous liquid wastes to be treated off-site
- 17 01 01 Concrete
- 17 01 02 Bricks
- 17 01 03 Tiles and ceramics
- 17 01 06\* Concrete, bricks, tiles and ceramics containing dangerous substances
- 17 01 07 Non hazardous mixtures of concrete, bricks, tiles and ceramics e.g. mixed rubble
- 17 02 01 Wood from construction or demolition e.g. timber trusses, supports, frames, doors
- 17 02 02 Glass from construction or demolition e.g. window panes

17 02 03 Plastic from construction or demolition e.g. UPVC plastic off-cuts

17 02 04\* Hazardous glass, plastic and wood e.g. telegraph poles

17 03 02 Bituminous mixtures that do not contain coal tar e.g. road planings, tarmac

17 04 01 Copper, bronze, brass from construction or demolition e.g. used copper piping

17 04 02 Aluminium from construction or demolition e.g. off-cuts, aluminium guttering

17 04 03 Lead from construction or demolition e.g. lead flashing

17 04 05 Iron and steel from construction or demolition e.g. steel scaffolding poles, iron grating

17 04 07 Mixed metals from construction or demolition

17 04 11 Cables that do not contain dangerous substances e.g. electric cabling

17 05 03\* Soil and stones containing dangerous substances e.g. contaminated soil

17 05 04 Soil and stones that do not contain dangerous substances e.g. clean soil

17 06 01\* Insulation materials containing asbestos

17 06 04 Insulation waste that does not contain asbestos or other dangerous substances

17 06 05\* Construction materials containing asbestos e.g. bonded asbestos

17 08 00 Gypsum based construction materials that do not contain dangerous substances e.g. plasterboard

17 09 03\* Other C&D wastes containing dangerous substances e.g. mix of oil/solvents/C&D waste

17 09 04 Other mixed C&D waste that is not hazardous

18 01 04 Waste from medical establishments that does not require special management e.g. sanitary waste

19 13 01\* Solid wastes from soil remediation containing dangerous substances

20 01 01 Paper & card similar to that from households e.g. office paper, junk mail

20 01 13\* Solvents similar to that from households e.g. parts cleaner

20 01 19\* Pesticides similar to that from households

20 01 21\* Fluorescent tubes and other mercury-containing waste

20 01 23\* Discarded equipment containing CFCs e.g. waste fridges & freezers

20 01 26\* Oil & fat that are not edible e.g. refrigeration oil

20 01 27\* Paint, inks, adhesives and resins containing dangerous substances e.g. waste polyurethane paint

20 01 30 Non hazardous detergent e.g. flushing agent/universal cleaner

20 01 33\* Hazardous batteries and accumulators that are collected separately

20 01 39 Separately collected plastics e.g. plastic containers, bottles

20 01 40 Separately collected metals e.g. gates, bedsprings

20 02 01 Garden or park waste that is biodegradable e.g. green waste, wood and shrubs

20 03 01 Mixed waste similar to that from households e.g. mixed office, kitchen & general waste

20 03 03 Street cleaning residues e.g. gully waste

20 03 04 Septic tank sludge

20 03 06 Waste from sewage cleaning

20 03 07 Bulky waste e.g. old office furniture, desks, sanitary ware

\* denotes hazardous wastes





## Appendix Form 7

*SWMP template - this template is suitable for projects over £500,000*

### Project information

Project name	<input type="text"/>					
Project Location	<input type="text"/>					
Project cost (estimated)*	<input type="text"/>					
Floor area (m <sup>2</sup> )	<input type="text"/>					
Project start date	Date	<input type="text"/>	Month	<input type="text"/>	Year	<input type="text"/>
Project end date	Date	<input type="text"/>	Month	<input type="text"/>	Year	<input type="text"/>
Site location description	<input type="text"/>					
Client	<input type="text"/>					
Principal Contractor	<input type="text"/>					
Version Number and Date	<input type="text"/>					

*\* The cost should be the price of the accepted tender, if there is no tender then it should be the estimated cost of labour, plant, materials, overhead and profit but exclude VAT.*

## Preparing your plan

### 1. Responsibilities

	Name	Company	Company Type (e.g. Client, Designer, Principal Contractor )	Contact details
Who is responsible for drafting the SWMP?				
Who is responsible for implementing the SWMP?				
Who is the waste champion?				
Who is the person in charge of the project?				

Where will this SWMP be kept? (a copy should be on site)

Electronic based document

Paper based document

**Declaration statement:** We agree that the 'Client' and the 'Principal contractor' will take reasonable steps to ensure waste duty of care is complied with, materials are handled efficiently and waste is managed appropriately.

Signature

Print name

Date

Preparing your plan

2. Waste minimisation

Use the table below to record decisions taken before the plan was drafted on the nature of the project, design, construction methods and materials to plan waste minimisation i.e. reducing the amount of waste produced

Type	Waste Minimisation decision taken	By whom	Intended results





## Implementing your plan

### 5. Duty of care

It is mandatory to include Duty of Care in your SWMP. The client and principal contractor must take reasonable steps to ensure waste duty of care and materials are handled efficiently, and waste is managed appropriately.

Please use the table to log relevant details:

Waste Management Contractor Name	Waste Management Contractor Address	Waste carrier license number; date of issue and expiry	Waste management license number, date of issue and expiry	Waste notes location	Transfer storage

Have you registered with the Environment Agency as a hazardous waste producer?

Yes  No

If yes, please provide your hazardous waste registration number; date of issue and expiry

If further assistance is needed to find local waste management contractors use BRE's free online tool at [www.bremap.co.uk](http://www.bremap.co.uk)

*For more information on Duty of Care and Hazardous Waste go to: [www.netregs.gov.uk](http://www.netregs.gov.uk)*





## Implementing your plan

### 8. Training / communication

#### Training

Everyone on site should receive relevant training which should include:

- The SWMP
- Roles and responsibilities
- Waste procedures on site
- Hazardous waste
- Duty of care / responsibilities
- Materials storage
- Roles and responsibilities

What forms of training are you using on site? *(please tick all that apply)*

Induction

Tool box talks

Work shops

Other (please state)

Do you have a training log?

Yes  No

If no, please use the attached table to create a training log

If yes where is it kept?

#### Communication

How are you communicating the SWMP on site? *(Please tick all that apply)*

Meetings

Posters

Feedback from staff

Other (Please state)









Reviewing your plan

11. Completion review

This section must be filled in within 3 months of the work being completed on this project (i.e. project finish) :

We confirm that the plan has been monitored on a regular basis to ensure that work was progressing to the plan and the plan was updated

Signature	
Print name	
Date	

This stage is designed to help you evaluate the success of your SWMP, and to identify key 'lessons learnt' to use on your future projects, it is helping you strive for continual improvement.

Please explain any deviation from the original plan:

Reviewing your plan

**11. Completion review continued**

**Please review how successful you believe the implementation of the SWMP was:**

**If project value in excess of £500,000 estimate of cost savings achieved:**

£

**Actions planned for next project:**

*Sections 10 – 11 should be completed within 3 months of the project finishing, this is the responsibility of the principal contractor*

This plan should be kept at either the principal contractor's place of business or at the site of the project for 2 years

## Appendix Form 8

Planned Audit Schedule												
Company	Internal audit schedule											
Activity/Month	J	F	M	A	M	J	J	A	S	O	N	D
Environmental policy												
Environmental aspects												
Legal & other requirements												
Objectives and targets												
Environmental management programmes												
Structure and responsibility												
Training awareness and competence												
Communication												
EMS documentation												
Document control												
Operational control												
Emergency preparedness and response												
Monitoring and measurement												
Non-conformance and corrective etc												
Records												
EMS audit												
Management review												

Appendix Form 9

Audit Report Form

ACTIVITY		REFERENCES		CHECKLIST NO		REV
						PAGE OF
Item	Requirement	Reference	Compliance	Observations		