

Food and drink manufacturing industry

Environmental management toolkit



December 2011, version 2

We are The Environment Agency. It's our job to look after your environment and make it **a better place** – for you, and for future generations.

Your environment is the air you breathe, the water you drink and the ground you walk on. Working with business, Government and society as a whole, we are making your environment cleaner and healthier.

The Environment Agency. Out there, making your environment a better place.

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Introduction

Welcome to the revised edition of the Food and Drink Manufacturing Environmental Management Toolkit. This edition incorporates a few minor changes based on the feedback received from users and updates that reflect changes to relevant legislation.

Managing the environmental aspects of our industry is fundamental to sustainable business practice. By using this toolkit you will be able to identify and implement the key procedures that are essential to sustainable business performance. At Nestlé, we have promoted the toolkit to our suppliers and are encouraging them to use it and adapt it to their own situations.

The toolkit has been developed to help all food and drink manufacturers to manage their environmental obligations on site. It provides a set of simple and adaptable templates that managers can use to ensure their operations are well managed. It will help you to comply with environmental legislation and will be useful to develop and review your environmental management system. It's deliberately not an EMS of itself but it will help you if you are on that journey. We have also included some essential references and sources of helpful advice and information. I am convinced that if you follow the toolkit carefully you will be able to achieve real bottom line business benefits.



Inder Poonaji

Head of Safety, Health and Environment Sustainability, Nestlé UK

(Chair of industry working group)





Food and Drink Manufacturing - Environmental Management Toolkit

What is it?

This is a pack of information, with **helpful simple templates**, specifically aimed to help Food and Drink manufacturing businesses manage their operations to **reduce the risk of harming the environment**. To work well it requires someone in your business to take responsibility for environmental management on site.

The toolkit has been compiled by the Environment Agency with the support of the Trade Associations that represent the Food and Drink manufacturing sector.

The templates and principles will be of benefit to businesses that are both regulated by the Environment Agency and businesses that are below permitting thresholds. The toolkit supports the guidance on environmental management provided by the Environment Agency that is applicable to those Food and Drink manufacturing installations that have an environmental permit under the Environmental Permitting Regulations 2010.

It isn't intended to meet all the requirements of an environmental management system (EMS); but can be used to form part of an EMS.

Further information on the regulatory requirements for an EMS can be found in the reference "[Getting the Basics Right](#)" - and in the guidance note on "[Environmental Management Systems](#)".

Why use it?

Most businesses have the potential to cause pollution. This management tool will help you consider:

- *Is there a less risky alternative to the way we do things?*
- *Is my equipment fit for purpose, inspected and maintained?*
- *Are my procedures and training adequate?*
- *In the event of something going wrong, am I prepared to deal with it?*

This tool will also help you to identify and manage typical impacts on the environment such as:

- **air emissions**, (for example, dust from the transport, boiler flue gas);
- **land contamination**, (for example, accidental spills of uncontained chemicals, solvents, cooking oils);
- **noise and odour pollution**, (for example, vehicle movement, waste handling, storing, transporting);
- **energy usage**, (for example, poorly maintained machinery, inefficient procedures and motors);
- **waste disposal**, (for example, such as solid and liquid wastes – these need correct disposal);
- **water discharges**, (for example, from wastewater treatment and direct discharges, site drainage).

What are the Business Benefits?

Benefits to a well managed site include:

- improved **resource efficiency** and **productivity** and help build a **sustainable** business;
- reduce **risks and loss**;
- reduced operating **costs**, including costs associated with environmental regulation;
- more likely to **obtain business** from others that require their business partners to manage their environmental impacts effectively;
- improved **reputation** amongst staff, customers and the public;
- increased chance of **funding** for your business by demonstrating responsible environmental management;
- improved **legal compliance**, reduce risks of **prosecution**, receive fewer visits from environmental regulators.

How should this toolkit be used?

The tools and templates within the toolkit are listed in the contents table on the next page. Your site responsible person should take the template versions in this toolkit and:

- Amend them, if required, to make them specific for their site activity.
- Keep the tools and templates together in a file, or as an electronic document, for quick reference by site employees, customers and for the regulator or auditors during their visits.
- Track progress in preparing your toolkit by completing the last two columns in the contents table when it has been completed, we suggest you start with item 1 in the toolkit contents.
- If you require further help then speak to us and/or use the references in *Section 7*.

In summary

For regulated sites, these simple tools will help you to:

- show that activities that could harm the environment are under control;
- develop a basic environmental management system for you site activities;
- to be less likely to breach your permit or cause pollution and, therefore, avoid enforcement action or prosecution;
- avoid having to pay higher charges for non-compliance (for example, it could help improve your Operational Risk Appraisal '**Opra**' rating).

If you have any comments or suggestions on the development of this toolkit, please e-mail the Environment Agency at: enquiries@environment-agency.gov.uk.

<p style="text-align: center;">Toolkit Contents</p>	<p>Have you completed the template for your site and has it been filed?</p>	<p>Signed by: Date:</p>
<p>1. Environmental Impacts Plan and Controls; look at all the processes and activities on your site, decide if they have a high, medium or low environmental risk as they operate or if you had an accident.</p>		
<p>2. Accident/Pollution Incident Management Plan, including: A – Site Plan B – Key Site and Emergency Contacts C – List of Substances and Storage Facilities D – Preventing Accidents - and what to do if they happen</p>		
<p>3. Maintenance Checklist and maintenance record</p>		
<p>4. Training Checklist / Record for your staff Keep a record of all your staff training; courses attended, date completed and when the training needs to be refreshed.</p>		
<p>5. Complaints Form for recording complaints about your site from members of the public.</p>		
<p>6. Accident (and incident) recording form</p>		
<p>7. Further Help</p>		
<p>8. Poster for your own use to display around your site.</p>		

1. Environmental Impacts Plan and Controls

This section will help you to carry out a risk assessment of the environmental impact for your business. If you have more than one site, assess the risk for each site.

Start by taking an overview of all the processes and activities on your site. Decide if they present a high, medium or low actual or potential environmental risk during normal operating conditions or if you had an accident. Table 1 will help you through the process.

Then for areas identified as High or Medium risk complete the tables 2A – 2G and table 3.

Factors to consider as you carry out your risk assessment include:

- Processes, activities and equipment:
 - raw material storage, including condition of containers;
 - plant operation and maintenance;
 - oil separator operation and maintenance;
 - material transport routes.
- Raw materials, water, energy and waste:
 - volumes of raw material used;
 - recorded/ metered water use;
 - gas and electricity used;
 - recycling/recovery and disposal of waste.
- Emissions from your site to:
 - air;
 - water;
 - sewers;
 - land.
- Site location and impact on the local environment and communities:
 - distance to surface waters, groundwater and water abstraction points;
 - surface water drains and foul drains/sewers that flow across and off your site;
 - soakaways, Sustainable Drainage Systems and unsurfaced ground;
 - your sites flood risk;
 - housing and community facilities near your site;
 - protected areas, for example Sites of Special Scientific Interest (SSSI).
- What could happen if you had a spill or accident;
 - risks posed to the environment and people;
 - possible effects of accidents, flooding, vandalism and failure of containment;
 - physical, chemical and biological properties of any material that maybe spilt;
 - availability of pollution control equipment.

FOOD AND DRINK MANUFACTURING - ENVIRONMENTAL MANAGEMENT TOOLKIT

Table 1

Site processes and activities:

<p>The key pieces of environmental legislation affecting this sector are: (Add as many as apply to your site activities)</p>	<ul style="list-style-type: none"> The Environmental Permitting (England and Wales) Regulations 2010, as amended SI 3538 Water Resources Act 1991, as amended Environmental Protection Act 1990 Control of Pollution (Oil Storage) (England) Regulations 2001, SI 2954 	<ul style="list-style-type: none"> Hazardous Waste Regulations 2005 The Producer Responsibility Obligations (Packaging Waste) Regulations 2010, SI 871 																																																																																																																																																																																																
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<p><u>Processes/Activities/ Equipment at your site:</u> (insert H or M or L where applies) List all the processes/activities/ equipment at your site in these columns. Then put an (H) high impact, or (M) medium impact, or (L) low impact in the box next to the process/activity/ equipment if it can result in an environmental impact listed below under normal or abnormal operation.</p> <ul style="list-style-type: none"> Emissions to air (including dust) – A Emissions to water – W Energy usage (for example, electricity, gas, heating and fuel oil) – E Waste disposal – D Land contamination – L Nuisance (such as noise or odour) – N Resource consumption (for example, water, chemicals, cooking oil, not energy) - R 	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">for example, oil/water separator – operation</td> <td style="width: 3%; text-align: center;">L</td> <td style="width: 3%; text-align: center;">H</td> <td style="width: 3%; text-align: center;">-</td> <td style="width: 3%; text-align: center;">H</td> <td style="width: 3%; text-align: center;">L</td> <td style="width: 3%; text-align: center;">-</td> <td style="width: 3%; text-align: center;">-</td> </tr> <tr> <td>Fuel delivery and off-loading</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Raw material storage</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Surface water drainage</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Packaging waste storage</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>For example, Boilers for raising steam</td> <td style="text-align: center;">H</td> <td style="text-align: center;">-</td> <td style="text-align: center;">H</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> <td style="text-align: center;">M</td> <td style="text-align: center;">M</td> </tr> <tr> <td>Others: (specify)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	for example, oil/water separator – operation	L	H	-	H	L	-	-	Fuel delivery and off-loading								Raw material storage								Surface water drainage								Packaging waste storage								For example, Boilers for raising steam	H	-	H	-	-	M	M	Others: (specify)																																																																<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"></td> <td style="width: 3%;"></td> <td style="width: 3%;"></td> <td style="width: 3%;"></td> <td style="width: 3%;"></td> <td style="width: 3%;"></td> <td style="width: 3%;"></td> <td style="width: 3%;"></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>																																																																																
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1. Environmental Impacts Plan and Controls

For each Process/Activity/Equipment identified in the Table 1 above complete the following tables if there is an environmental impact [at least High (H) or Medium (M)] under normal or abnormal operation (*the examples included are guidance only*).

Table 2A. Emissions to Air [A] (use as many forms as you need)						
Process/Activity/ Equipment on Site <i>Add any other processes or activities that apply.</i>	Potential Impact	Is impact controlled by equipment?	Is equipment included on maintenance checklist?	Is impact controlled by a procedure?	Person using the procedure received training?	Comments
For example, Flue Gas Emissions from boilers raising steam – Gas/Oil Fired	Flue Gas emissions include CO ₂ a greenhouse gas contributing towards global warming; NO _x contributes to acidification, potential for local air quality issues with dust.	Yes – boiler operation	Yes - Boilers on list	Yes – Boiler operation	Yes	Boilers gas fired – operator trained and burners and dampers regularly maintained.
For example, Dust from site activity A (<i>state specific activity</i>)	Potential for local air quality issues from dust. Also, a cause for complaints.					

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Table 2B.
Energy Usage [E] (use as many forms as you need)

Process/Activity/ Equipment on Site <i>Add any other processes or activities that apply.</i>	Potential Impact	Is impact controlled by equipment?	Is equipment included on maintenance checklist?	Is impact controlled by a procedure?	Person using the procedure received training?	Comments
For example, Electricity usage for large machine/ activity A (<i>state specific machine/ activity</i>).	The impacts associated with electricity production are well documented (for example, air emissions). There is scope to reduce these impacts by using electricity efficiently on site.					
For example, Gas usage for boilers/ activity A (<i>state specific machine/ activity</i>).	The impacts associated with gas usage are well documented (for example, Air emissions). There is scope to reduce these impacts by using energy and water efficiently on site.					

Table 2C.
Emissions to Water [W] (use as many forms as you need)

Process/Activity/ Equipment on Site <i>Add any other processes or activities that apply.</i>	Potential Impact	Is impact controlled by equipment?	Is equipment included on maintenance checklist?	Is impact controlled by a procedure?	Person using the procedure received training?	Comments
For example, Oil/Water separator.	Oil passes through the separator into a watercourse potentially causing harm to environment.					
For example, Surface water run-off from buildings, car parks and concrete hard standing.	Under normal conditions surface water run-off should be uncontaminated. However, if contamination occurs by accident, it has the potential to cause water pollution to local watercourse if there is a site drain failure.					for example, The accidental contamination case is considered in our Accident/ Incident Management Plan
For example, Effluent Treatment Plant (ETP) discharge to water course.	Effluent discharge meets consent limits for example, for pH, COD/BOD, suspended solids. ETP operation optimised to meet limits and reduce energy use.					

Table 2D.

Waste Disposal [D] (use as many forms as you need)

Process/Activity/ Equipment on Site <i>Add any other processes or activities that apply.</i>	Potential Impact	Is impact controlled by equipment?	Is equipment included on maintenance checklist?	Is impact controlled by a procedure?	Person using the procedure received training?	Comments
For example, Packaging materials utilisation, reuse, recycling and any waste produced.	Reduced waste disposal and packaging reuse optimised. All waste should be segregated to help recycle and recover materials and to meet Producer Responsibility obligations.					
For example, General unsorted waste.	Most general unsorted waste is landfilled and this has associated impacts for example, ecotoxicity, global warming and nuisance for example, odour. General waste volumes can be reduced if sorting systems are used. Need to meet legal Duty of Care requirements; including the new waste hierarchy requirements.					
For example, waste electrical and electronic equipment (WEEE) and batteries <i>(state specific activity).</i>	Harm to human health and the local and global environment. There are Producer Responsibility obligations covering waste electricals and batteries to encourage their recovery. Contact your supplier as there may be collection systems in place for these items.					
For example, Hazardous Waste from activity A <i>(state specific machine/</i>	For example, Chemicals, ink jet cartridges, fluorescent tubes, waste oils (not edible oils), must all be handled in accordance with Hazardous Waste Legislation.					

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<i>activity).</i>						

Table 2E. Nuisance (for example, Noise, Odour) [N] (use as many forms as you need)						
Process/Activity/ Equipment on Site <i>Add any other processes or activities that apply.</i>	Potential Impact	Is impact controlled by equipment?	Is equipment included on maintenance checklist?	Is impact controlled by a procedure?	Person using the procedure received training?	Comments
For example, Noise from site activities (state specific activity, for example, Crushing).	Section III of the Environmental Protection Act 1990, noise can be classified as a statutory nuisance.					
For example, Noise from transport movement on site.	Section III of the Environmental Protection Act 1990, noise can be classified as a statutory nuisance.					
For example, Odour from site activities (state specific activity).	Section III of the Environmental Protection Act 1990, odour can be classified as a statutory nuisance.					

Table 2F.
Resource Consumption (not energy) [R] (use as many forms as you need)

Process/Activity/ Equipment on Site <i>Add any other processes or activities that apply.</i>	Potential Impact	Is impact controlled by equipment?	Is equipment included on maintenance checklist?	Is impact controlled by a procedure?	Person using the procedure received training?	Comments
For example, use of chemical/ material for activity A (<i>state specific chemical/material/ activity</i>).	Harm to human health or escape to the local environment. Manage hazardous substances according to COSHH and Hazardous Waste Regulations.					
For example, use of hydraulic oil for machine A (<i>state specific machine</i>).	Harm to human health or escape to the local environment. Manage hazardous substances according to COSHH and Hazardous Waste Regulations.					
For example, use of packaging materials for activity A (<i>state specific material/ activity</i>).	Inefficient or overuse of packaging materials could increase costs associated with the Packaging Regulations as well as having an impact on the environment when discarded. Under use of packaging could also impact the impact on the environment through breakage and product loss. Remedied by adopting a system of packaging optimisation.					
For example, use of water and raw materials.	Inefficient use results in natural resource depletion. Linked to energy and water use/waste generation. Remedied by adopting a resource efficiency/waste minimisation programme.					

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Table 2G. Land Contamination (for example, storage of hazardous substances) [L] (use as many forms as you need)						
Process/Activity/ Equipment on Site <i>Add any other processes or activities that apply.</i>	Potential Impact	Is impact controlled by equipment?	Is equipment included on maintenance checklist?	Is impact controlled by a procedure?	Person using the procedure received training?	Comments
For example, Storage of substance A (specify specific substance).	Substance A can cause harm to the ecotoxicity of the soil, and could leak into groundwater.					

Table 3.

General Waste Management (use as many forms as you need)

Waste Produced at Site (with EWC, if known)	Where does the waste go?	Can it go to recovery / recycling?	Is it being stored correctly on site?	Are Duty of Care requirements being met?	Comments
For example, General waste (EWC ref) sent for disposal.	ABC landfill	No – Checked on 01/05/11	Yes – Checked 01/05/11	Yes – Checked on 01/05/11	State the checks that were made and refer to any documentation.
For example, effluent treatment plant sludge sent for land spreading.	123 recovery Ltd	Yes	Yes – Checked on 01/05/11	Yes – Checked on 01/05/11	State the checks that were made and refer to any documentation.
For example, waste sent for materials recycling.	XYZ packaging	Yes	Yes – Checked on 01/05/11	Yes – Checked on 01/05/11	State the checks that were made and refer to any documentation.

2. Accident/Pollution Incident Management Plan

Further help is available in [Incident response planning: PPG 21](#) (See section 7)

Created by: _____ **Date:** _____

Review Date: _____ **Version:** _____

Accident / Pollution Incident Management Plan Contents

A – Site Plan

B – Key Site and Emergency Contacts

C – List of Substances and Storage Facilities

D – Preventing Accidents / Incidents... and what to do if they happen.

A – Site Plan

Insert site plan showing location of the following items:

- **Site entrances and exits** available to the emergency services
- **Buildings;** the buildings and other main constructions
- **Drainage;** including:
 - foul drainage (marked in red);
 - surface water drainage (marked in blue);
 - combined drainage marked with a red 'C'.showing the:
 - direction of flow ;
 - discharge points to the sewer, watercourse or soakaway;
 - location of manhole covers and drains;
 - location of stop and diverter valves and interceptors;
 - location of pollution control equipment, for example drain covers and spill kits.
- **Service mains;** the routes of:
 - water supply, gas, electricity;
 - mains water stop tap, and gas and electrical supply isolating valves/switch.
- **Storage of hazardous materials;** for example, oil and fuel tanks/drums, chemical stores, raw materials, waste materials etc.
- **Process lines;** location and direction of main process lines/pipes.
- **Accident and emergency response items;** for example personal protective equipment, fire extinguishers, fire hydrants, fire water tanks/ponds, pollution control equipment (for example spill kits), sand bags, alarms, first aid kits etc.
- **Vulnerable receptors;** on site or adjacent receptors that could be affected by the site operations, such as porous/unmade ground, watercourses, springs, boreholes, ecologically sensitive sites, residential properties, schools, offices, hospitals etc.
- **Pollution control points;** such as inspection or monitoring points, bunds.
- **Treatment;** location of any on site trade effluent or sewage effluent treatment plant.

B – Key Site and Emergency Contacts

This table contains information and phone numbers you may need in an emergency (*amend, as needed, to suit your site*).

Site details			
Business name:			
Location:			
Postcode:			
Site Access Grid Reference:			
Site contacts	Name	Office Hours (specify)	Out of hours
Owner:			
General Manager:			
Site Manager:			
Site Supervisor:			
Security Contact:			
Landowner / Agent:			
Emergency services		Office Hours	Out of hours
Emergency:		999	999
Medical:			
Police:			
Fire:			
Regulators		Office Hours	Out of hours
Health and Safety Executive (HSE):			
Local Authority:			
Environment Agency (Local office):			
Environment Agency (24 hour incident hotline):		0800 80 70 60 (24 hrs)	
Natural England (for Wales, Countryside Council for Wales):			
Utility/key services	Name	Office Hours	Out of hours
Water company:			
Sewage treatment provider:			
Gas supplier:			
Electricity supplier:			
Oil supplier:			
Fuel supplier:			
Chemical supplier:			
Oil spill contractor:			
Maintenance contractor:			
Electrician:			
Plumber:			
Locksmith:			
Joiner:			
Other key contacts	Name	Office Hours	Out of hours
Head Office:			
Adjacent landowners:			
Neighbours:			
Specialist advisors:			

D - Preventing accidents/incidents - and what to do if they happen.

Further help is available in [Dealing with spills: PPG 22](#) (See section 7)

The following table is a list of the things that could go wrong and harm the environment. The list covers many of the things that could go wrong for a site such as yours but you should look and see if you can see anything else specific to your site that could cause a problem. If you can add it to the list. You should refer back to your risk assessment to make sure you consider all the risks that you've identified.

The table describes what you should be doing to reduce the chances of each possibility happening. It also describes what should be done if the worst actually happens.

How to complete and review your plan

- Read each line and see if they are right for your site, some may not be applicable. You may need some different ones.
- Make sure you are committed to doing the things it says as you may be held to them.
- If it refers to using pollution control equipment such as spill-kits, make sure you have these available.
- Finally make sure that all your staff know about the plan, where to find it, and what it contains. It is important that they know how to prevent accidents and what to do.

Once your plan is completed, train your staff so they know what they should do if you have an accident or incident. Test your plan regularly and make a record of what you did and who was involved. You can design exercises to be discussion based, table top or live. You can set them up to test the whole plan or critical elements within it such as:

- contacts lists;
- the activation process;
- equipment.

If possible, include external parties as this helps validate your plan.

Frequency of testing should be related to the environmental risk your site poses, staff turnover, the introduction of new processes or materials and conclusions from any previous exercises or incidents.

You should review your plan after every time you test it to check what went well and what should be improved, as a minimum every 3 to 4 years. You may need to review this plan following an incident, accident, complaint or if the Environment Agency asks you to.

FOOD AND DRINK MANUFACTURING - ENVIRONMENTAL MANAGEMENT TOOLKIT

Possible Accident/ Incident	What would the harm be?	How do we reduce the chances of it happening?	What to do if it happens
Spills			
Spill during transfer or delivery of raw materials.	Contamination of land, drains, groundwater and watercourses.	Inspect and validate the security of all deliveries Make sure transfer pipelines are secure Train the staff	Follow the spill response procedure. It describes what to do in the event of a spill and where the kit is kept.
Spill during delivery of cooking or heating oil or fuel.		Supervise fuel deliveries. Use drip trays and spill materials.	
Spills during refuelling of plant and equipment.		Plant and equipment will be refuelled in designated areas with impervious surface and will use drip trays and spill materials.	
Overfilling			
Overfilling of oil/fuel tanks during delivery.	Contamination of land, drains, groundwater and watercourses.	Stock level control checks, supervised delivery and high level alarms.	Spill response procedure as described above.

FOOD AND DRINK MANUFACTURING - ENVIRONMENTAL MANAGEMENT TOOLKIT

Possible Accident/ Incident	What would the harm be?	How do we reduce the chances of it happening?	What to do if it happens
Failure of Plant or Equipment			
Leak; due to faulty pipe work, valves, over-pressure, blockages, corrosion, severe weather, ground movement etc.	Contamination of land, drains, groundwater and watercourses.	Daily visual inspection and completion of weekly inspection checklist record. Preventative maintenance regime. Any underground pipes and tanks will be tested for integrity. Insulation and protection of pipe work.	Spill response procedure as described above.
Puncture; of vessels and tanks etc. due to impact – such as fork lift trucks.		Tanks and vessels generally located within / on secondary containment facilities. Storage locations of drums and non-permanent vessels protected by use of barriers or fencing. Movement of drums and containers using safe techniques.	
Fire			
Fire	Smoke and pollution. Firewater causes contamination of land, groundwater and watercourses.	Separation of incompatible materials and of combustible materials and ignition sources. Incorporation of fire breaks into site layout and containment of fire water. No smoking policy. Maintain tidy site and minimize stockpile of combustible materials. Fire training and emergency drills.	Fire procedure describing what to do if you have a fire, including details about fire alarms, exit routes and muster points, responsible personnel (such as a fire warden) and the location and use of emergency fire equipment such as extinguishers, hoses, sand bags and drain covers.

FOOD AND DRINK MANUFACTURING - ENVIRONMENTAL MANAGEMENT TOOLKIT

Possible Accident/ Incident	What would the harm be?	How do we reduce the chances of it happening?	What to do if it happens
Cross contamination			
Due to transfer and mixing of incompatible materials, drainage cross connections etc.	Explosion, smoke and pollution of air. Contamination of land, drains, groundwater and watercourses.	Maintenance of up to date drainage plan. Maintenance of inventory of substances with material property details. Procedure for contractors to work on site including induction training and permit to work. Fail-safe filling systems.	Fire procedure as described above.
Flood			
Ingress of water from watercourse floodwater, blocked drains, burst water main, use of fire water.	Contamination of raw materials, buildings, land, drainage system, groundwater and watercourses with fire and flood water.	Maintenance of drains. Fitting of flap/non return valves on drains. Safe location for storage of hazardous materials.	Flood procedure describing what to do in the event of a flood warning such as installation of barge boards, use of sand bags, movement or protection of sensitive materials.

FOOD AND DRINK MANUFACTURING - ENVIRONMENTAL MANAGEMENT TOOLKIT

Possible Accident/ Incident	What would the harm be?	How do we reduce the chances of it happening?	What to do if it happens
Failure of Services			
Failure of supply; water, electricity, gas supply and of sewerage system. Failure due to utility supply being struck and broken/cut.	Flooding, explosion with subsequent contamination of land, drains, groundwater and watercourses.	Provision of standby facilities. Maintenance of up to date plans showing location of utility services. Procedure for contractors to work on site including induction training and permit to work.	Utility supply failure procedure describing what to do in the event of services supply failure such as manual shut down of process valves, start up of emergency generator, use of standby materials etc. Flood and fire procedure as described above.
Failure of Containment			
Failure of containment facilities due to land movement, impact, corrosion etc.	Contamination of land, drains, groundwater and watercourses.	Provision of secondary containment for hazardous liquids. Inspection and maintenance of primary and secondary containment facilities. Integrity testing of tanks and bunds and pressure loss alarms.	Spill response procedure as described above.

FOOD AND DRINK MANUFACTURING - ENVIRONMENTAL MANAGEMENT TOOLKIT

Possible Accident/ Incident	What would the harm be?	How do we reduce the chances of it happening?	What to do if it happens
Vandalism			
<p>Unauthorised entry and tampering or malicious damage to property, plant and equipment.</p>	<p>Contamination of land, drains, groundwater and watercourses.</p>	<p>Secure gate and perimeter fence. Site locked when un-manned, tanks and valves locked when not in use out of hours. Plant and equipment locked in secure storage out of hours. Security system installed including camera and recording facilities.</p>	<p>Spill response procedure as described above.</p>

3. Maintenance Checklist

Maintaining your storage, equipment, plant and site is essential to reduce your risk of causing pollution and protect your site.

Use as many forms as you need (*the examples may or may not be applicable for your site – amend as appropriate*).

Item requiring maintenance <i>Add any others that apply.</i>	How often? (tick the appropriate box)						Where are maintenance instructions?	Who is responsible?
	Day	Week	Month	Year	2 years	5 years		
Check the oil separator		✓					Cabin wall	
Check drains and drainage channels for blockages.		✓						
Clean up spills on surfaced areas or tank bunds	✓							
Check state of fences and gates – (to avoid vandals or children getting in and, for example, letting liquids out of a tank).		✓						
Visually check the un-surfaced areas to ensure that there are no spills. Clean up if necessary.		✓						
Check bunds are not filling with rainwater – pump out if necessary (via the oil separator).			✓					
Check the de-pollution area concrete for cracks or excessive oil.				✓				
Inspect the bunds for potential leaks, cracks, holes etc.				✓				
Integrity testing of underground pipes/tanks.					✓			
Check Storage Tank capacity to prevent possible overfilling.	✓							
Boiler maintenance.				✓				

FOOD AND DRINK MANUFACTURING - ENVIRONMENTAL MANAGEMENT TOOLKIT

4. Training Checklist

We recommend you keep records of what the training covered (including environmental aspects), any course assessments with the results and, if it was run by external people, who ran the training.

(Food and Drink Sector Site) Use as many of these forms as you need (the examples included may or may not be applicable for your site – amend as appropriate).

Job/role	Training required (tick boxes to show who needs which training)															Comments
	Environmental awareness					Maintenance/operations					Accidents and emergency					
	Environmental permit awareness	Waste management and Duty of care	Waste separation and storage	Effluent treatment plant		Maintenance of boilers	Maintenance of storage tanks	Add skills appropriate to your site			Fire procedure	Spill response procedure/ incident response plan	Flood procedure (where applicable)	Failure of services		
Site manager																
Site supervisor	✓	✓		✓							✓	✓	✓	✓		
Site operator A			✓			✓						✓				
Site operator B							✓					✓				
Contractor 1																

Other jobs for example, Operator D, Operator E, Operator F (Trainee), Contractor 2 (Maintenance).

5. Complaints Record

Who made the complaint?	Name:	
	Address:	
	Post code	
	Phone no.	
Date and time the complaint was made		__ / __ / ____ __:__
What happened, what was it about?		
Was anyone else aware of this – other neighbours or your staff? If so who?		
Did the complaint relate to your site? If so, what happened? What went wrong?		
What have you done to make sure that it does not happen again?		
Was there any significant pollution – for example: dust, odour or noise outside the site or spill of polluting liquids onto the ground, into a drain or a watercourse?		
If there was then you must notify the Environment Agency on 0800 807060 ASAP. Have you done so?	Yes/No	At what time did you phone? __ : __
You must also write or send an e-mail to confirm this to the local office (see your accident management plan for the address). Have you done so?	Yes/No	What date did you contact? __ / __ / ____
Please print your name and sign:		

Continue overleaf or on a separate sheet if you do not have enough room.
 Keep the completed form in the file to discuss with the Environment Agency when they visit.

6. Accident (and Incident) Record

Record of accidents, other incidents or near misses

This form could apply equally to health and safety, we are particularly interested in things that could impact on the environment, for example: dust, odour or noise outside the site or spillage of polluting liquids onto the ground, into a drain or a watercourse.

“Other incidents” covers impacts on the environment that are not accidents, such as failing to empty the oil separator causing oil to get into the drains, or vandals causing an oil spill.

It’s good practice to record near misses – for example, vandals opened the valve on the tank but the bund caught everything and no harm was done. You do not have to inform us of this sort of thing.

Date and time of the incident	
What happened, what was it about?	
Was anyone else aware of this – other witnesses? If so who?	
What caused it?	
What have you done to make sure that it does not happen again?	
Was there any significant pollution or environmental damage to land, water or protected areas – for example: dust, odour or noise pollution outside the site or spillage of polluting liquids onto the ground, or at a site of special scientific interest, or into a drain or a watercourse? If so what?	
If there was, then you must take steps to prevent further damage and notify the Environment Agency on 0800 807060 and any other relevant regulators ASAP. Have you done so? Yes / No	Who did you phone? At what time did you phone?
You must also write or send an email to confirm this to the local office (see your accident management plan for the address). Have you done so?	Yes/No What date did you contact?
Please print your name and sign	

Continue on a separate sheet if you do not have enough room.

Keep the completed form in the file to discuss with your auditors or regulators when they visit.

7. Further Help

Pollution Prevention Guides

available to download from: <http://www.environment-agency.gov.uk/ppg>

General Guide to the Prevention of Pollution: PPG 1

Above ground oil storage tanks: PPG 2

Use and design of oil separators in surface water drainage systems: PPG 3

Disposal of sewage where no mains drainage is available: PPG 4

Safe storage and disposal of used oils: PPG 8

The use of high pressure water and steam cleaners: PPG 13

Managing fire water and major spillages: PPG 18

Pollution incident response planning: PPG 21

Dealing with spills: PPG 22

Pollution Prevention Pays – Getting Your Site Right (24-page Guide and DVD)

<http://publications.environment-agency.gov.uk/PDF/PMHO0104BHQI-E-E.pdf>

Getting the Basics Right – How to Comply with Your Environmental Permit (54-page Guide)

<http://publications.environment-agency.gov.uk/PDF/GEHO0411BTSP-E-E.pdf>

The government on-line business advice and support service:

For England – Business Link www.businesslink.gov.uk

For Wales - FS4B www.fs4b.wales.gov.uk

Waste Regulation – waste hierarchy and more.

<http://www.environment-agency.gov.uk/business/topics/waste/128153.aspx>

GG344: Setting up an Environmental Management System in the Food and Drink Industry

<http://www.envirowise.gov.uk/uk/Our-Services/Publications/GG344-Setting-up-an-environmental-management-system-in-the-food-and-drink-industry.html>

EN864: Self-assessment review or Food and Drink Manufacturers

<http://www.envirowise.gov.uk/uk/Our-Services/Publications/EN864-Self-assessment-review-for-food-and-drink-manufacturers.html>

How to register as a packaging producer

<http://www.environment-agency.gov.uk/business/topics/waste/32212.aspx>

Environment Agency Contact Information – National Customer Contact Centre

<http://www.environment-agency.gov.uk/contactus/default.aspx>

National Customer Contact Centre

PO Box 544

Rotherham

S60 1BY

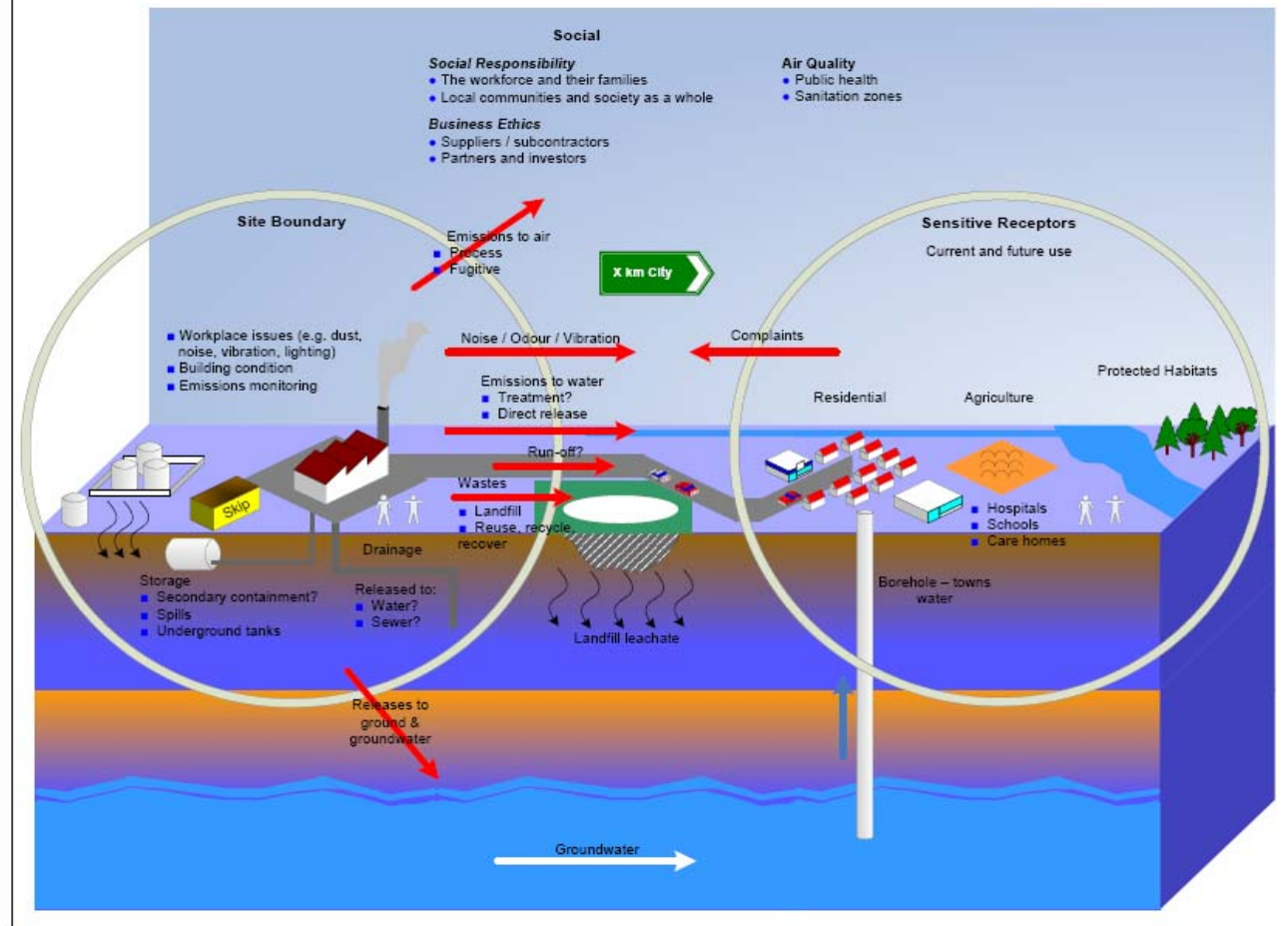
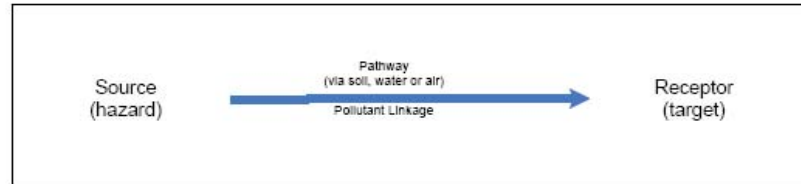
Telephone: 03708 506 506 (Mon-Fri, 8am - 6pm)

8. Poster

Protecting the Environment

This site's main potential **pollution sources** are:
 [e.g. Storage of waste oils in drums]
 [e.g. Fibrous asbestos storage]
 [e.g. Potential for dust creation if site roads are not damped down]

Sensitive **environmental receptors** at or near the site are:
 [e.g. Underground aquifer used for supplying drinking water]
 [e.g. Houses and gardens to the south of the site]
 [Site of Special Scientific interest next to building B3]



Would you like to find out more about us, or about your environment?

Then call us on

03708 506 506* (Mon – Fri 8 – 6)

e-mail

enquiries@environment-agency.gov.uk

or visit our website

www.environment-agency.gov.uk

Incident hotline 0800 80 70 60 (24 hrs)

Floodline 0845 988 1188

Download the toolkit from the Environment Agency website at:

www.environment-

[agency.gov.uk/business/topics/pollution/113738.saspx](http://www.environment-agency.gov.uk/business/topics/pollution/113738.saspx)

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