ESA 21 - INCIDENT RESPONSE PLANNING

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

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

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

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

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

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

1. INTRODUCTION

This advice sets out best practice for producing an incident response plan to deal with an environmental incident on your site. Following such a plan will help you to prevent or reduce environmental damage if such an incident occurs. This advice sets out:

- Why you need a plan.
- What information you should include.
- Who should be involved in its production.
- What supporting procedures you may need to implement the plan.
- What the plan should look like by providing a template.

It is aimed at those sites which do not have a statutory duty to prepare such plans. They may be used to supplement guidance for sites controlled under the Control of Major Accident Hazards (COMAH) Regulation 2015, and the Environmental Permitting Regulations (England and Wales) (Amendment) (No 2) Regulations 2018, The Environmental Authorisations (Scotland) Regulations 2018 under these regulations there is a statutory obligation to have an incident response plan in place. Please be aware of additions to and amendments of relevant Regulations dependant on your location.

As well as using this advice to produce your plan, you should seek further guidance from your local regulator on the specific requirements for each site operated under these regulations.

1.1 WHO SHOULD READ THIS ADVICE?

This advice is for:

- Site operators of industrial and commercial premises to help them produce an incident response plan.
- Other organisations, authorities and individuals whose site or operations pose a potential risk to the environment and who should have an incident response plan.
- The Fire and Rescue Service and others who may be involved in the production of, and/or have an interest in, such plans for example, the Health and Safety Executive, Maritime and Coastguard Agency, other government departments/bodies, public health officials and insurers/underwriters.

The next section tells you how to assess the risk your site may pose to the environment and what level of plan you need to help reduce that risk.

1.2 Why have a plan?

Many industrial and commercial sites have the potential to cause significant environmental harm which could threaten economic uses of water, water supplies, public health and wild life in the event of an environmental incident for example fire, explosion or spillage. These include sites that:

- Store, use or process toxic and/or polluting substances such as chemicals, oils, food or beverages.
- Contain hazardous materials such as asbestos within the fabric of the building.
- Contain or store materials which would give rise to hazardous products in the event of a fire, for example, toxic smoke from burning plastic.

Causes of environmental incidents on your site include:

- Delivery and use of materials.
- Overfilling containment vessels.
- Plant or equipment failure.
- Containment failure.
- Fires, explosions or failure to contain firefighting water.
- Wrong connections into sewers and pipes.
- Incompatible materials coming in contact.
- Uncontrolled reactions.
- Discharges due to power failure.
- Discharge of partially-treated or raw effluent.
- Vandalism and theft.
- Flooding of part or your entire site.

Any of these incidents could affect:

- Drainage systems, surface waters, aquatic ecosystems, groundwater and soil.
- Air quality by producing toxic fumes and airborne pollutants which may damage human health, wild and domestic animals and ecosystems.
- Thermal radiation which can harm people and the environment.
- Local communities, businesses and amenities.

The impacts may be immediate and long lasting; you may be responsible for the costs of clean-up. This can be expensive particularly if you contaminate groundwater. There may be additional costs too; associated with incident response and/or fines or costs and third party claims through the criminal and/or civil courts. Your company's business reputation and ability to bid for tenders and other works may also suffer.

To identify the risk your site poses to the environment we recommend you undertake a simple risk screening assessment. Where this assessment indicates that your site could cause an environment incident you can reduce the likelihood of such an incident occurring by following our advice.

Our ESA 1 – Understanding Your Environmental Responsibilities will provide you with guidance on general pollution prevention and correct storage of materials and ESA 22 covers spill response techniques.

Whilst our ESA 18 – Managing fire water and major spillages will help you identify the equipment and techniques you can use to mitigate the impact of any fire or major spillage on your site. It's being suggested that we don't publish ESA 18 as it is out of date and instead reference CIRIA 736 Containment systems for the prevention of pollution. A free download is available that we could add to your reference tools https://www.ciria.org/ItemDetail?iProductCode=C736F&Category=FREEPUBS

But you can't completely remove the risk of an incident occurring which could cause pollution. We therefore recommend that all sites produce an incident response plan. It doesn't have to be complicated it could be very simple as the level of risk should influence the size complexity and details of your plan.

Your plan may just cover how you deal with environmental incidents or be part of a more comprehensive incident response plan for the site for example COMAH on-site and off-site plans.
The information in the plan may also help your emergency responders produce a response plan for your site.

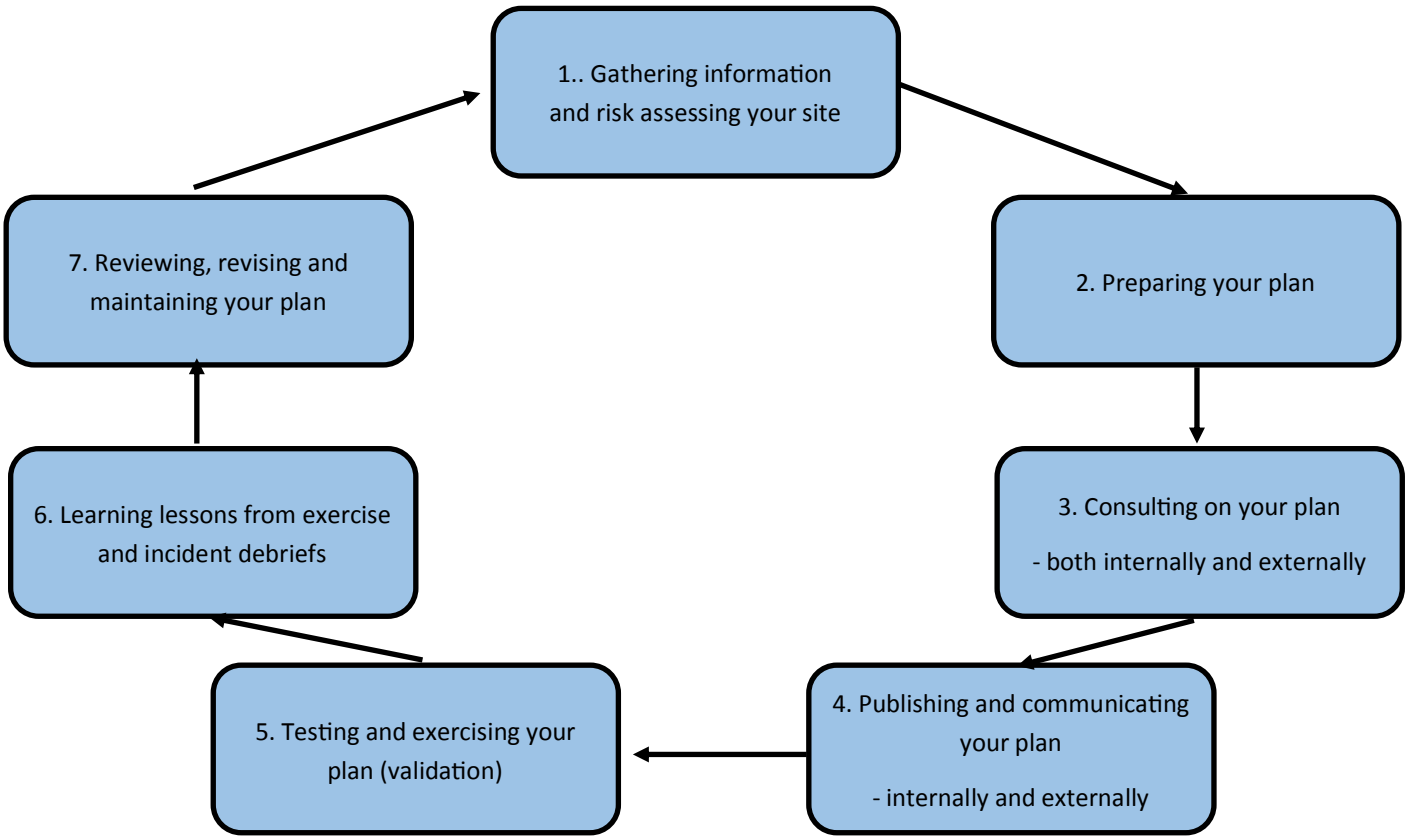
2.0 THE PLANNING CYCLE

The planning cycle is the continuous process of assessing the risk of your site and preparing for incidents. The process is supported by procedures that make sure your plan works (validation), that you review and revise it regularly and that your staff and contractors are prepared and trained. The key elements of the planning cycle are:

- preparing the plan;
- activating and responding;
- plan testing/training;
- reviewing.

The following diagram shows how each stage of the planning cycle links to and supports the next one. This ensures that you keep the plan up to date, it remains effective and that you communicate it to your staff and contractors who show that they understand it.

Diagram 1 – The Planning Cycle (Diagram courtesy of the Environment Agency)



2.1 PREPARATION

The following sections suggest the type of information you'll need to complete your plan. The suggested template for your incident response plan can be found at the end of these guidelines.

2.1 A COVER PAGE

This should give:

Details of the site: name, full postal address, national grid reference/location and any contact details.

- A summary of the main business activities carried out on site.
- Objectives of the plan.
- The date the plan was signed off, by whom and the version number.
- The person or role/team responsible for its review, distribution and implementation.
- A distribution list of your staff and external organisations that hold copies.

2.1B EXTERNAL AND INTERNAL CONTACT LISTS

The external contacts list should contain 24-hour contact details for all those organisations or companies that may need to be involved during or after an incident. For example:

- Emergency services.
- Your environmental regulators.
- Local authority.
- Local water company/authority.
- Local sewerage undertaker
- The Health and Safety Executive.
- Local health care providers/Public Health
- Specialist clean-up contractors.
- Sources of specialist advice e.g. DEFRA CBRN Emergencies (https://www.gov.uk/government/groups/government-decontamination-service), the National Chemicals Emergency Centre (https://the-ncec.com/en).
- Chemical suppliers and manufacturers.

The internal contacts list will reflect the organisational structure of your company and the response procedures you have in place. The names/positions on the template are suggestions only.

If your site isn't staffed outside office hours, you must identify contact details for key holders.

2.1C SITE CHEMICAL, PRODUCT AND WASTE INVENTORY

You should maintain an up-to-date record of all substances stored on-site, together with an indication of the maximum quantity likely to be stored. Attach product data sheets and COSHH assessments for any substances posing a risk to people and/or the environment.

You should mark on the site plan all stores, bulk storage vessels, drums or containers that you use for storing oils, chemicals or other potentially polluting materials. If you regularly store oils or chemicals or hold them away from fixed installations or storage areas in any significant quantity (for example, in production areas), you should indicate their whereabouts on the site plan. If you have chemical process lines, include these on the plan. Make sure that all emergency responders can access this inventory and, if possible, distribute it as part of your emergency planning process.

2.1D POLLUTION PREVENTION EQUIPMENT INVENTORY

Record the equipment and materials you have on site to deal with pollution incidents. For example:

- Sorbents.
- Spill kits
- Drain mats/covers.
- Pipe blockers.
- Booms (sorbent and containment for use on land or water)
- Pumps.
- Over drums.
- Portable containment tanks.
- Portable bunds.
- PPE appropriate to the materials being recovered.

If any equipment requires special training to use it, include the contact details of staff members who are trained in its use.

2.1E SITE PLAN

This should be a clear diagram of the site showing layout and access details, along with a schematic representation of the site drainage arrangements. Features that you should show are:

- The layout of buildings;
- Access routes and meeting points for emergency services.
- The location of process areas and any on-site treatment facilities for trade effluent or domestic sewage.
- Areas or facilities you use to store raw materials, products and wastes (include details of tank sizes and products stored).
- Bunded areas, with details of products stored and estimated retention capacity.
- Location of hydrants, 'fireboxes' and pollution prevention equipment and materials.
- Any watercourse, spring, borehole or well located within or near the site.
- Areas of permeable or unmade ground.
- Site drainage – foul, surface and trade effluent drainage systems including features such as:
    - Inspection points to detect pollution.
    - Oil separators/interceptors.
    - Firewater/spillage containment systems.
    - Balancing tanks.
    - Pollution control devices such as drain shut of valves.
    - Sacrificial containment areas such as car parks.
    - Other areas suitable for portable storage tanks, for blocking drains and temporary storage of firewater.
    - Area where waste/product can be temporarily moved to so it doesn't contribute to a fire.
    - Contained area where burning material can be spread out and doused with water.

You should provide a brief description of how all facilities operate and make sure they are clearly labelled above ground (see section 2.2)

2.1F HOW TO PRODUCE A DRAINAGE PLAN

You should use the standard/conventional features of drainage plans. This will make them easier for other organisations to use and for your own staff to understand.

- Use red for foul sewers.
- Use blue for surface water sewers, watercourses and soakaways.
- Use the same convention for drain covers and grips.
- Number the drain covers to help identify them.
- Distinguish between separate or combined system (Red C = Combined).
- Mark the location, depth and construction details of any soakaways or depth for boreholes and wells.
- Indicate the direction of flow for all sewers.
- Identify the sewage treatment works/sewage pumping station to which your site connects.
- Identify all surface water outfalls from the site.
- Identify suitable points for installing pollution control booms or for constructing a dam either at the outfalls or on the receiving watercourse.
- Consider installing permanent boom anchor points at a suitable location, taking into account possible flow conditions.

Whilst you are drawing up your drainage plan, use the opportunity to check for any mis-connections from your site, for example, a foul sewer that is linked or connected into a watercourse. This is illegal and may also lead you to respond incorrectly during a spillage.

In many cases, you'll need additional drainage plans to provide detailed information. You should attach these to your response plan and refer to them in it.

2.2 ACTIVATION AND RESPONSE

Once you've written your plan, develop supporting emergency procedures to check the plan works if there's an incident. Make sure all relevant staff and contractors are aware of these procedures and the plan.
Examples of the information to include are:
• procedures for alerting key staff;
• standby/rota systems;
• clearly defined roles and responsibilities;
• names of staff and contractors trained in incident response;
• the types and location of emergency response equipment available and appropriate personal protective equipment (PPE) to be worn;
• a system of response coordination;
• off-site support.
The actual level of your response will depend on your site. Consider what could happen on your site as a worst case scenario and develop procedures to deal with it. The checklist below gives some suggestions on procedures.

- Clearly define the circumstances when the plan should be activated. This will depend on the nature of your site and the type of the incident.
- Ensure all relevant staff know how and when to contact other emergency responders: emergency services, us, local authority, sewage undertaker and other organisations identified in your emergency plan.
- Consider the impact that an incident on your site could have on the environment outside your boundary: nearby properties, downstream abstractors, agricultural land or environmentally sensitive sites. Once identified, agree contact procedures with them if possible.
- Consider the risk of fire spreading from an adjacent site to yours
- Put in place staff evacuation procedures – your local authority emergency planning department will help you with these.
- Identify any special methods you need to deal with substances posing particular health or environmental risk.
- Develop a fire fighting strategy and firewater management with your local fire and rescue service; if a controlled burn is an agreed option, state this clearly. The same applies to the use of foam and other firefighting additives.
- Staff should be trained in the use of spill kits, drain blockers and other pollution control equipment and the operation of pollution control devices.
- Identify procedures for recovering spilled product and the safe handling and legal disposal of any waste associated

2.3 PLAN TESTING

Once your plan is completed, test it regularly by exercising; at some sites for example COMAH sites, it is a legal requirement.

Exercises are vital to:

- Validate the whole plan – does it work?
- Develop your staff's and contractors' competencies in emergency response.
- Test your standard procedures.

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.

- Information management.

Where resources permit, include external partners/responders as this helps validate your plan.

The frequency of testing and exercising 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.

The effectiveness of any site incident response plan will depend on staff training. You should make sure that all staff and contractors working on-site are aware of the plan which you should make available electronically and in hard copy. All staff should know their role and responsibilities and the relevant procedures if an incident occurs (see section 2.2). Maintain and regularly review records of all staff training.

Your staff training should include:

- Awareness of the potential for harm to people and the environment from the materials held on-site. Also the impact on the business.
- Information on the sensitivity of the environment surrounding the site.
- The environmental responsibilities of your business.
- Use of the correct personal protective equipment and any appropriate and/or necessary health and safety training.
- Reporting procedures if there's a risk of surface water, groundwater or land contamination.
- Reporting procedures in relation to the risk of contaminated air emissions affecting staff and/or the local community.
- Reporting to the local water/sewerage undertaker if a discharge to the foul or combined sewer is involved.
- Safe and correct use of all spill clean-up equipment or pollution prevention structures and/or devices on site.
- Safe handling and legal disposal of contaminated materials and wastes resulting from an incident, including arrangements for using specialist contractors and services.
- Appropriate and safe decontamination.

2.4 REVIEW AND MAINTENANCE

Your plan must remain effective and up to date, so record any lessons learnt from exercises or actual incidents in post exercise/ incident debriefs. Use recommendations from debriefs or from staff and contractors to improve your plan. Even if you haven't carried out an exercise, it's good practice to review the plan regularly we suggest as a minimum every couple of years and communicate all changes to your staff and other responders. Good practice would be to share lessons learnt with other group companies/sites and with trade bodies.

3. WASTE

Waste material associated with an incident will come under the Duty of Care. This means you have a legal duty to make sure that any waste the incident produces does not escape your control and that you dispose of it legally, safely and properly.
You must transfer such waste to an authorised registered waste carrier or exempt waste carrier or waste manager. A full description of the waste and a waste transfer note must accompany it. The waste must be disposed of lawfully.
If the waste is hazardous or special waste, for example oil waste, acids and/or solvents, additional requirements will apply and its movement must be accompanied by a consignment note. Everyone involved in the transfer of this waste must keep a copy of the consignment notes for proof of legal disposal.
You must include procedures in your plan for dealing with any waste arising in an incident.

4. DISTRIBUTION AND REVISION

If you wish, you may contact your local regulators to discuss your plan. Once you've taken into account any relevant comments, distribute copies of the completed plan to the organisations recorded on its front page. Keep a copy of the plan on site in an easily accessible location away from the main building such as a gatehouse or a dedicated 'firebox' to which the emergency services can readily gain access. A notice at the site entrance should indicate the location of the plan. You should also keep a copy on-line on a secure server with a back-up copy/access in case of IT issues.

INCIDENT RESPONSE PLAN

TEMPLATE FOR AN INCIDENT RESPONSE PLAN

Use this template to help you identify all the relevant information you need to effectively respond to an incident on your site. It is not intend as a description of all the procedures you need to activate the plan. You should identify, develop and record these separately using the advice in Section 2.2 – Activation and response.

The template is a guide only and can be modified to take in to account any site specific requirements and operational needs. We recommend discussing your plan where possible with relevant external organisations particularly the emergency services and your local regulators to maximise cooperation during an incident. Once in place you can use it as a basis for supporting the planning cycle and maintain effective and safe response to incidents.

INCIDENT RESPONSE PLAN	
Name and address of company/Location of site	NGR: Map References: Link to map:
Overview of the activities on site: Include the number of employees at different times of the day.	
Description of surrounding area:	

INCIDENT RESPONSE PLAN	
Date and version of plan:	Name or position of person responsible for compiling/ approving the plan:
Review Date:	Date of next exercise:
Objectives of the plan:	
List of external organisation consulted in the preparation of the plan with contact details:	
Distribution list number of copies of the plan and version:	

INCIDENT RESPONSE PLAN

INCIDENT RESPONSE PLAN		
EXTERNAL CONTACTS		
Contact	Office hours	Out of hours
Emergency services (Fire/ Police/Ambulance)		
Local Police		
Local Hospital/NHS Trust		
Environmental Regulator Incident Hotline		
Environment Regulators Local contacts and roles (Ideally minimum of two contacts)		
Local authority Emergency planning department		
Local water company/authority		
Electric company		
Gas company		
Waste management contractor		
Specialist advice		
Specialist clean up contractor		
INTERNAL CONTACTS		
Names and positions of staff authorised/trained to activate and co ordinate the plan		

Other staff: Managing Director		
Site Manager		
Environmental Manager		
Health and Safety Manager		

INCIDENT RESPONSE PLAN

Chemical Product and Waste Inventory

Trade name/ substance	Solid/liquid/gas or powder	UN number	Maximum amount	Location marked on site plan	Type of containment	Relevant health and environmental properties

INCIDENT RESPONSE PLAN

Pollution Prevention Equipment Inventory (on and off site-resources)

Type	Location	Amount	Staff contact

INCIDENT RESPONSE PLAN
Site Plan **Sections 2.1e and 2.1f of the advice tells you how to produce both a site plan and a drainage plan. These should be kept with the rest of the plan ready to use during an incident response.**