GPP 21: Pollution Incident Response Plans

These guidelines are produced by Natural Resources Wales, the Northern Ireland Environment Agency, the Scottish Environment Protection Agency. Contact details are available at the end of this document.

Guidance for Pollution Prevention (GPPs) are based on relevant legislation and reflect current good practice. Following these notes will help you manage your environmental responsibilities to prevent pollution and comply with the law. If you cause pollution or allow it to occur, you may be committing a criminal offence.

For Northern Ireland, Scotland and Wales, this document provides guidance on environmental legislation.These guidelines are not endorsed by the Environment Agency. For guidance on environmental regulations in England go to www.gov.uk

To find the relevant regulations visit www.legislation.gov.uk

1. Introduction

These guidelines set 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.

The guidelines set out:

- why you need a plan
- what information you should include
- who should be involved in its production
- what the plan should look like by providing **a template** (at the end of these guidelines).

Contents

1.1 Who should read these guidelines?

This guidance 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, Government Decontamination Service, public health officials and insurers/underwriters.

The guidelines are aimed at sites which are not already required, as a condition of a permit, to prepare pollution incident response plans. If you operate a site that is required to have a pollution incident response plan, then you should speak to your environmental regulator about the specific requirements for your site. Contact details are listed at the end of these guidelines.

1.2 Why produce a plan?

Many industrial and commercial sites have the potential to cause significant environmental harm. They could threaten water supplies, public health and wildlife if an environmental incident takes place.

Causes of environmental incidents 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 of sewers and pipes
- incompatible materials coming in contact
- uncontrolled reactions
- discharge of partially-treated or raw effluent
- vandalism
- flooding of part or all of your site.

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. You may have

other costs associated with the emergency response teams and you may face fines for causing pollution. Your company's business reputation may suffer.

1.3 The wider application of your plan

Your Pollution Incident Response Plan could be designed to deal with environmental incidents on your site, or it could be part of a more comprehensive incident response plan for the site, for example Control of Major Accident Hazards (COMAH) on-site and off-site plans.

The incident response plan may support the work of Local Resilience Forums in England and Wales, the Resilience Division in Scotland and the Civil Contingencies Framework in Northern Ireland (see **Reference 3**). These groups can use your Incident Response Plan to help develop their local risk registers.

The information in the plan may also help the emergency responders produce their own response plan for your site in the case of an incident.

2. The Plan: Assessing, Preparing, Activating, Testing, 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. This planning cycle is a process of continuous improvement.

2.1 Assess the risks on site

You should identify all the potential risks to the environment from the materials, processes and activities on your site. There is detailed guidance in how to carry out a risk screening assessment in GPP 28 – Controlled Burn (**reference 1**). This applies to all sites, not just those where controlled burn is relevant.

You should also refer to:

- **Reference 2**: GPP 1 – A General Guide to Pollution Prevention, which covers general pollution prevention and the correct storage of materials
- **Reference 3**: GPP 18 - Managing Firewater and Major Spillages, which will help you identify the equipment and techniques you can use to deal with the impact of fire or major spillages on your site.

2.2 Gather information and prepare your plan

2.2. 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 who's responsible for its review, distribution and implementation
- a distribution list of your staff and external organisations that hold copies
- a reference to the Inventory Section of your plan – to allow emergency responders to identify the locations of hazards, such as gas cylinders and chemical stores.

2.2. b. External and internal contacts list

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 regulator
- local Council
- local water company/authority
- the Health and Safety Executive
- local health care providers/Health Protection Agency
- specialist clean-up contractors
- sources of specialist advice e.g. UK Government Decontamination Service, the National Chemicals Emergency Centre (see website list)
- 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 and positions on the template are suggestions only.

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

2.2. c. Site chemical, products 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 Safety Data Sheets and COSHH assessments (see **reference 5)** 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. Our GPP 02: Above Ground Oil Storage provides advice on safe storage (**Reference 6**). 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.

2.2. d. Pollution prevention equipment inventory (spill kits etc.)
Record the equipment and materials you have on site to deal with pollution incidents. See **reference 3:** GPP 18 Firewater and major spillages.

For example:

- absorbents
- drain mats/covers
- pipe blockers
- booms
- pumps
- over drums.

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

2.2. e. Prepare a 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 how much the bund can contain
- location of hydrants, 'fireboxes' and pollution prevention equipment and materials
- any watercourse, spring, borehole or well located within or near the site
- areas of porous or unmade ground.

2.2. f . Prepare a drainage plan

You should also include an up to date site drainage plan which includes foul, surface and trade effluent drainage systems.

The drainage plan should include:

- surface water drainage
- the foul sewer
- any connections where trade effluent drains into the foul sewer
- inspection points to detect pollution
- oil separators/interceptors – **reference 7** GPP3 Use and design of oil separators in surface water drainage systems.
- firewater/spillage containment systems
- balancing tanks
- pollution control devices (shut-off valves/penstocks fitted in drains)
- sacrificial containment areas such as car parks
- other areas suitable for portable storage tanks, for blocking drains and temporary storage of firewater.

You should provide a brief description of how all facilities operate and make sure they're clearly labelled above ground. Note when inspections were last carried out on pollution control devices.

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 drains, watercourses and soakaways.
- Colour your drain covers and grips in the same way.
- 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, 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.

While you are drawing up your drainage plan, use the opportunity to check for any misconnections from your site, for example, a foul sewer that has been linked or connected into a watercourse. This is illegal and may lead you to respond incorrectly during a spillage. If misconnections are found, contact your water and sewerage provider.

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.
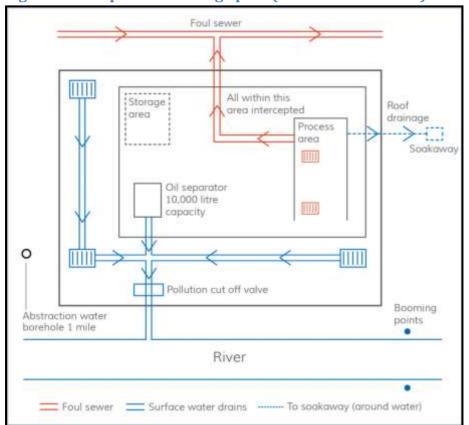
Figure 1 Example of a drainage plan (UK Fire and Rescue)

2.3 Activate and seek responses

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.

Procedure	Included?
Clearly define **when you will activate the plan**. 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, environmental regulator, local authority, sewage undertaker and others identified in your plan.	
Agree **contact procedures**, if possible, with nearby properties, downstream abstractors, agricultural land or environmentally sensitive sites that could be affected by an incident on your site.	
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** 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 (see **reference 1: Controlled Burn** for further advice).	
Train your staff 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 with the incident.	
Have staff available who are trained to deal with **media enquiries**.	

2.4 Test your plan and train staff

Once your plan is completed test it regularly by carrying out exercises. 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
- 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. Make it available electronically and in hard copy.

All staff should know their roles 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
- 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 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.

2.5 Review and update your plan

Your plan must remain effective and up to date, so record any lessons learnt from exercises or actual incidents. Use these recommendations, or comments 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. It is good practice to do so as a minimum every 3–4 years and communicate all changes to your staff and other responders.

3. Manage waste from an incident

Waste material associated with an incident will come under the Duty of Care (see **reference 8**). This might include:

- Used absorbents from a spill kit
- Contaminated soil
- Firewater
- Damaged stock or goods
- Oils, solvents, acids.

The Duty of Care requires:

- Accurately describing your waste, including any hazardous properties
- Safe and secure storage of waste
- Segregation of hazardous/special waste
- The use of a registered waste carrier to remove waste from your site – see **Reference 9** for how to search your relevant Environmental Regulator's public register. You should also know where the carrier takes your waste for onward management.
- The use of waste transfer notes or consignment notes (for hazardous special waste)
- Keeping records – you must keep copies of Waste Transfer Notes for a minimum of two years and Hazardous Waste Consignment Notes for a minimum of three years.

You must include procedures in your plan for dealing with any waste arising in an incident. You can contact your environmental regulator for further information.

4. Distribute your plan

You may want to contact your environmental regulator at the local office to discuss your plan. Contact details are at the end of this document.

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.

We will treat any information supplied in your plan as confidential. With your permission, we may discuss the response to an incident with the other organisations who have received a copy of the plan from you.

5. References

Reference 1: GPP 28 – Controlled Burn http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/

Reference 2: GPP 1 – A General Guide to Pollution Prevention
http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/

Reference 3:   GPP 18 - Managing Firewater and Major Spillages
http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/

Reference 4: Local Resilience Forums

- **Northern Ireland**: Civil Contingencies https://www.executiveoffice-ni.gov.uk/articles/civil-contingencies
- **Scotland**: Resilience division http://www.readyscotland.org/ready-government/resilience-division/
- **Wales:** Wales Resilience http://walesresilience.gov.uk/?skip=1&lang=en
- **England:** https://www.gov.uk/guidance/local-resilience-forums-contact-details

Reference 5: COSHH and Safety Data Sheets

- Scotland, Wales and England: HSE - COSHH http://www.hse.gov.uk/coshh/
- Northern Ireland: HSENI - COSHH https://www.hseni.gov.uk/topic/coshh

Reference 6: GPP 02: Above Ground Oil Storage
http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/

Reference 7: GPP3: Use and design of oil separators in surface water drainage systems
http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/

Reference 8: Duty of Care – Codes of practice

- Duty of Care code of practice Northern Ireland https://www.daera-ni.gov.uk/publications/waste-management-duty-care-code-practice
- Duty of Care Code of Practice Scotland - http://www.gov.scot/resource/0040/00404095.pdf

- Duty of Care code of practice Wales -
https://www.gov.uk/government/publications/waste-duty-of-care-code-of-practice
- Duty of Care: Code of practice England
https://www.gov.uk/government/publications/waste-duty-of-care-code-of-practice

Reference 9: Public registers of waste carriers

- In Northern Ireland: Registered waste carriers/transporters https://www.daera-ni.gov.uk/articles/registered-waste-carriers-transporters
- In Scotland: Registered waste carriers and brokers http://apps.sepa.org.uk/rocas/
- In Wales: Check if an organisation is registered as a waste carrier, broker or dealer. https://www.wastecarriersregistration.naturalresourceswales.gov.uk/en/registrations/search
- In England: Register of waste carriers, brokers and dealers https://environment.data.gov.uk/public-register/view/search-waste-carriers-brokers

6. Other useful sources of information:

UK Fire and Rescue: Environmental Protection Handbook for the Fire and Rescue Service http://www.ukfrs.com/Information%20and%20Research/Environment%20Agency%20and%20DCLG%20environmental%20handbook.pdf

CIRIA: Containment systems for the prevention of pollution (C736): *Secondary, tertiary and other measures for industrial and commercial premises.* http://www.ciria.org/Resources/Free_publications/c736.aspx (free publication)

HSE: Safety and environmental standards for fuel storage sites. Buncefield Standards Task Group (BSTG) Final report – June 2010 http://www.hse.gov.uk/comah/buncefield/final.htm

7. Useful websites:

Environmental Regulators

- Northern Ireland Environment Agency: https://www.daera-ni.gov.uk/contacts/northern-ireland-environment-agency-contact
- Scottish Environment Protection Agency: www.sepa.org.uk/
- Natural Resources Wales: https://naturalresources.wales/
- Environment Agency: https://www.gov.uk/government/organisations/environment-agency

National bodies

- Health and Safety Executive: www.hse.gov.uk
- Health and Safety Northern Ireland: www.hseni.gov.uk/
- Maritime and Coastguard Agency: www.mcga.gov.uk
- The National Chemical Emergency Centre: the-ncec.com/
- UK Government Decontamination Service: www.gov.uk/government/groups/government-decontamination-service

Fire and rescue

- Northern Ireland Fire and Rescue Service: www.nifrs.org/
- Scottish Fire and Rescue Service: www.firescotland.gov.uk/
- Wales Fire and Rescue: gov.wales/topics/people-and-communities/communities/safety/fire/localservices/?lang=en
- England Fire and rescue services: http://www.fireservice.co.uk/information/ukfrs/

Resilience and Civil Contingencies

- Northern Ireland: Civil Contingencies www.executiveoffice-ni.gov.uk/articles/civil-contingencies
- Scotland: Resilience Division www.readyscotland.org/ready-government/resilience-division/
- Wales Resilience: walesresilience.gov.uk/?skip=1&lang=en
- England: Emergency Planning https://www.gov.uk/government/policies/emergency-planning

Devolved Governments

- Scottish Government: www.gov.scot/Home
- Welsh Government: http://gov.wales/?lang=en
- The Northern Ireland Executive: https://www.northernireland.gov.uk/

Resources

NetRegs for Northern Ireland and Scotland: www.netregs.org.uk

Construction Industry Research and Information Association: www.ciria.org.uk

The Stationery Office: www.tsoshop.co.uk

8. Incident response plan template

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 guidance 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 environmental regulator to maximise co-operation 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	**NGR**
	Map References:
Location of site	**Link to map:**

Overview of activities on site.   Include number of employees at different times of the day

Description of surrounding area

Date and version of plan	**Name and position of person responsible for compiling/approving the plan**

Incident response plan

Review Date:	Date of next exercise:

Objectives of the plan:

List of external organisations consulted in the preparation of the plan – with contact details

Distribution list, number of copies and version

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		
Environmental regulator		
Local Authority Emergency Planning Dept		
Water company/authority		
Electricity company		
Gas company		
Waste management contractor		
Specialist advice		
Specialist clean up contractor		

Internal contacts

Contact	Office hours	Out of hours
Names of staff authorised to activate and co-ordinate plan		
Other staff: **Managing director**		
Site manager		
Environmental manager		
Health and Safety manager		

Incident response plan

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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	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 2.2e and 2.2f of the guidance 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.

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Incident response plan

Drainage plan

9. Contact details

Northern Ireland, Scotland and England:	
Incident/Pollution hotline:	**0800 80 70 60 (24 hrs)**
Wales: Emergency hotline: (press 1)	**0300 065 3000,(24 hrs)**
Floodline - England, Wales and Scotland:	**0345 988 1188**
Flooding incident line (NI):	**0300 2000 100**

Natural Resources Wales	**Scottish Environment Protection Agency**	**Northern Ireland Environment Agency**
www.naturalresourceswales.gov.uk	www.sepa.org.uk	https://www.daera-ni.gov.uk/northern-ireland-environment-agency
HEAD OFFICE	Strathallan House	HEAD OFFICE
(Ty Cambria)	The Castle Business Park	Klondyke Building
29 Newport Road,	Stirling	Cromac Avenue
Cardiff	FK9 4TZ	Gasworks Business Park Lower Ormeau Road
CF24 0TP		Belfast BT7 2JA
Tel: 0300 065 3000 (Mon-Fri, 9am-5pm)	Tel: 03000 99 66 99	Tel: 0300 200 7856
enquiries@naturalresourceswales.gov.uk	http://www.sepa.org.uk/contact/	nieainfo@daera-ni.gov.uk