

# POLLUTION INCIDENT RESPONSE PLANNING: PPG21

# POLLUTION PREVENTION GUIDELINES

*These guidance notes have been drawn up to assist in the development of site specific pollution incident response plans to prevent and mitigate damage to the water environment caused by accidents such as spillages and fires. They are aimed at those sites which do not have a statutory duty to prepare such plans under the Control of Major Accident Hazards Regulations (COMAH) for which more detailed plans may be required. These notes are jointly produced by the Environment Agency, the Scottish Environmental Protection Agency (SEPA) and the Environment and Heritage Service for Northern Ireland, referred to as the Agency or Agencies. Please contact your local Agency Office for further information. Contact details will be found at the end of these guidelines.*

## 1. INTRODUCTION

The Agencies' guidance on industrial sites (PPG11-Reference 1) provides basic advice on proactive pollution prevention. Further information on techniques for managing run-off generated in the event of a fire ("fire water") and major spillages is available in PPG18-Reference 2.

This guidance document provides supplementary advice on pollution incident response planning. It identifies why such a plan is needed, what information should be included and provides a template as a starting point for those preparing such a plan. Although it is intended principally for organisations, authorities and employees with responsibility for medium to large sites, much of the information will be relevant for smaller sites, especially those where high risk activities are carried out. It aims to help site operators consider the appropriate level of detail for a specific site, taking into account the risks and the site layout.

## 2. WHY PRODUCE A POLLUTION INCIDENT RESPONSE PLAN?

Most industrial and commercial sites have the potential to cause significant environmental harm and to threaten water supplies and public health. The Agencies publish a range of pollution prevention guidance notes, which will, if followed, minimise the risk of an incident occurring. However, there will always be a residual risk of a spillage or a fire that could cause serious environmental problems. In addition to the obvious threat posed by chemicals and oils, even materials which are non-hazardous to humans, such as foods and beverages, can cause serious environmental harm. The run-off generated in the event of a fire can also be very damaging.

The environmental impact of such an incident may be long term and, in the case of groundwater, may persist for decades or even longer. As a result, the legal consequences and clean-up operation can be costly. Rivers, sewers, culverts, drains, water distribution systems and service ducts all present routes for pollutants to travel off-site. As a result, the effects of a discharge may not be evident on site but may become apparent some distance away. In some cases, for example in the event of a fire, atmospheric deposition could also have a long-range impact.

In most cases, an incident of this kind need not result in serious environmental damage, providing appropriate pollution prevention measures are in place or immediately available. The key to this is to have in place a contingency, or pollution incident response, plan. This need not be costly to prepare, but could minimise the consequences of an incident.

## 3. PRODUCING AN INCIDENT RESPONSE PLAN

The centre pages of this guidance note have been designed for easy removal and may be used as a framework for a site incident response plan that can be modified to meet individual site or operator requirements. The following section provides guidance on the detailed information which may be included in the plan.

### a. Cover page

This provides details of the site and of those for whom the plan is relevant. This should be completed with:

Box 1 - Company name and full postal address of site

Box 2 - a brief description of the main business activities on site, including specifically those with a high potential for environmental harm.

Box 3 - Date plan completed and date the plan is due to be reviewed

Box 4 - The plan should be "signed-off" by an appropriate company manager

Box 5 - A list of recipients of the completed plan.

### b. Contact list

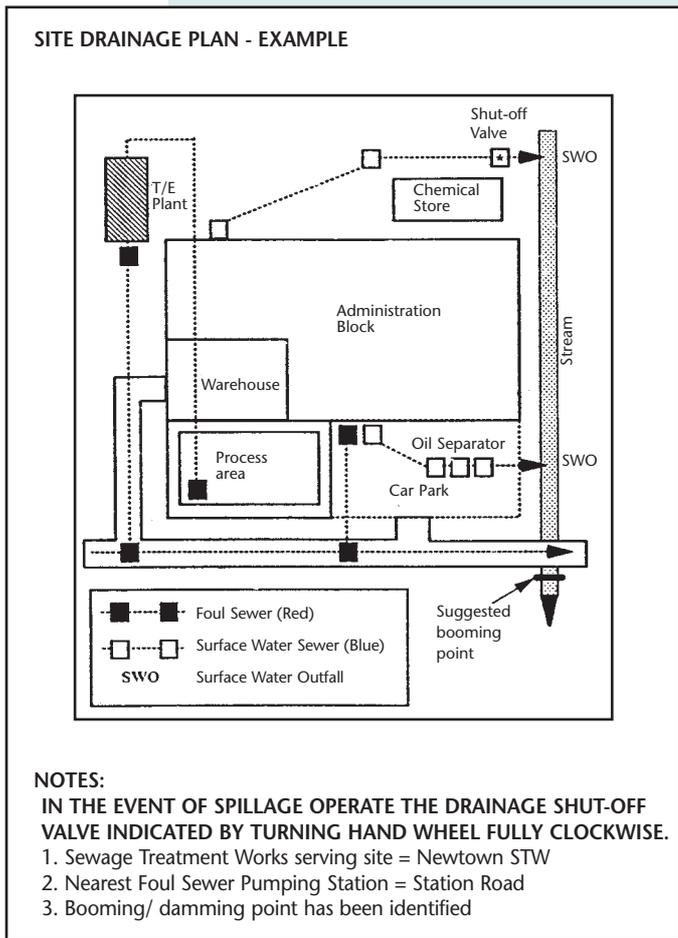
This should list key contact numbers for the Emergency Services, the relevant environmental regulators, the local water supply and sewerage undertakers, the Health and Safety Executive and specialist clean-up contractors. Staff who are key-holders and those who would be contacted in the event of a significant incident should be identified (including home and mobile numbers). Include the contact numbers for any sources of specialist advice, such as chemical suppliers and manufacturers whose products are held on site.

### c. Site drainage plan

This should have a clear diagram of the site showing layout and access details, along with a schematic representation of the site drainage arrangements. Use red for foul drainage and blue for surface water drainage and clearly indicate the direction of flow. A similar approach should be used for drain covers on site, which can also be numbered to assist identification. Off-site discharge points for surface water and trade effluent should be clearly marked. Identify the sewage treatment works to which sewage and trade effluent discharge, along with the nearest foul sewer pumping station serving the site (the local sewerage undertaker should be able to provide this information). See example below.

Include the following information:

- i. General layout of buildings
- ii. Clearly mark site access routes for emergency services
- iii. The location of hydrants, "fireboxes" (see section 5) and pollution prevention materials (such as spill kits).
- iv. Identify any bunded areas along with products stored and estimated retention capacity.
- v. The location of the process areas and any on-site treatment facilities for trade effluent or domestic sewage.
- vi. Mark areas or facilities used for storage of raw materials, products and wastes and include details of tank sizes.
- vii. Show the location of sprinkler control valves (where present) and the mains water supply stopcock.
- viii. Identify facilities such as inspection points for the detection of pollution, oil separators, retention or balancing tanks, fire-water retention ponds, containment tanks and pollution control devices such as shut-off valves in drains. Indicate sites suitable for portable storage tanks or for blocking drains. Provide a brief description of how they operate and ensure such facilities are clearly labelled above ground on site.
- ix. If surface water discharges to soakaways, show their location, depth and construction details.



Show any watercourse, borehole or well within or adjacent to the site. Indicate the direction of flow (or depth for boreholes and wells), surface water outfalls from the site and suitable points for installing pollution control booms or a dam. If possible, boom anchor points should be permanently installed, at a suitable location, taking into account possible flow conditions.

It is important to have a simple site drainage plan with the key details shown. In many cases, additional plans will be required to provide detailed information. These should be attached to the plan and referenced within it.

#### **d. Site oil, chemical and product inventory**

Include an up-to-date record of all substances stored on site, giving the maximum quantity likely to be stored. Product data sheets should be attached for any substances posing a particular risk to health or the environment. All stores, bulk storage vessels, drums or containers used for storing oils, chemicals or other potentially polluting materials (for example milk or other foodstuff) should be marked on the site plan. If oils or chemicals are regularly stored or held away from fixed installations or storage areas in any significant quantity (for example in production areas), indicate their whereabouts on the site plan. If a number of chemical process lines are present, it is recommended that an annotated sketch plan of each is included.

#### **e. Emergency procedures**

Detailed emergency procedures should be added to the template provided. They should define the scope of activities covered, staff responsibilities and the procedures for dealing with events such as spillages and leaking containers. The level of response will depend on Health and Safety issues, staff training, the level of personal protective equipment available, the nature of any spilled materials and the types of pollution control equipment available on the site. The appropriate level of response will, therefore, be site specific. It is important to consider what could happen in the worst case and to take this into account in developing the procedure. A check-list of actions may be a useful addition.

In general they should address the following issues:

- i. Fire fighting strategy. This should be discussed with the fire service. If “controlled burn” is an agreed option, (see PP18-Reference 2 for details) this should be clearly stated.
- ii. Nearby properties, downstream abstractors or environmentally sensitive sites which could be affected by an incident
- iii. The consequences of an incident at nearby properties
- iv. Procedures for alerting staff on site, and where appropriate, adjacent sites. This should include evacuation procedures.
- v. Contacting the emergency services, Agency, local authority and other organisations concerned, and dealing with the press.
- vi. Substances posing particular risks should be highlighted in the Emergency Plan.
- vii. The selection of the appropriate level of personal protective equipment
- viii. The means of making leaking containers safe
- ix. Procedures for containing leaks, spills and fire-fighting run-off and for the protection of any on-site effluent treatment plant. The location and use of spill kits, drain blockers and other pollution control equipment and the operation of pollution control devices should be clearly documented. Stocks of pollution control equipment and materials held locally by other organisations should be identified and details of clean-up companies should be kept up to date.
- x. Procedures for the recovery of spilled product and the safe handling and disposal of any wastes arising from the incident. PPG18-Reference 2 contains some useful relevant information.

## **4. TRAINING**

Any site incident response plan will depend for its effectiveness on staff training. All staff and contractors working on site should be made aware of the plan and should know their role if an incident occurs. Exercises should be carried out periodically to familiarise staff with the operation of the plan and to test its effectiveness and records of staff training should be maintained. Training should include:

- i. Awareness of the potential for harm to both personnel and the environment from the materials held on site.
- ii. The use of the correct personal protective equipment (PPE)
- iii. Reporting to the Agency if there is a risk of surface or ground water contamination
- iv. Reporting to the local sewerage undertaker if a discharge to the foul or surface water sewer is involved.
- v. The cleaning up of the contaminated area and the handling and disposal of contaminated materials and wastes resulting from an incident.
- vi. The appropriate decontamination or disposal of contaminated PPE

## 5. DISTRIBUTION AND REVISION

Should you so wish, you may forward a copy of your plan to your local Agency office for comment. Having taken into account any relevant comments, distribute copies of the completed plan to the organisations recorded on the front page. Keep a copy of the plan on site in an easily accessible location away from the main building, such as a gate-house 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.

Any information supplied in such a plan will be treated by the Agency as confidential. However, it may be discussed with other organisations to whom a copy of the plan has been sent, such as the Fire Service, as part of our incident response planning.

Finally, in order for the plan to remain effective, it is vital that it is regularly reviewed and that any significant changes are reflected in a revised plan. Ensure that revised copies are sent to all plan holders and that old versions are destroyed.

## 6. REFERENCES

1. PPG11: Preventing pollution on industrial sites
2. PPG18: Managing fire-water and major spillages

Other relevant documents

PPG22: Dealing with spillages on highways

References 1 and 2 and PPG22 are available free of charge from your local Agency office.

All the Agencies' pollution prevention guidance notes are available on the web sites listed below.

### ENVIRONMENT AGENCY

#### HEAD OFFICE

Rio House, Waterside Drive, , Aztec West  
Almondsbury, Bristol BS32 4UD.  
Tel: 01454 624 400 Fax: 01454 624 409  
World Wide Web: <http://www.environment-agency.gov.uk>

### REGIONAL OFFICES

#### ANGLIAN

Kingfisher House  
Goldhay Way  
Orton Goldhay  
Peterborough PE2 5ZR  
Tel: 01733 371 811  
Fax: 01733 231 840

#### MIDLANDS

Sapphire East  
550 Streetsbrook Road  
Solihull B91 1QT  
Tel: 0121 711 2324  
Fax: 0121 711 5824

#### NORTH EAST

Rivers House  
21 Park Square South  
Leeds LS1 2QG  
Tel: 0113 244 0191  
Fax: 0113 246 1889

#### NORTH WEST

Richard Fairclough House  
Knutsford Road  
Warrington WA4 1HG  
Tel: 01925 653 999  
Fax: 01925 415 961

#### SOUTHERN

Guildbourne House  
Chatsworth Road  
Worthing  
West Sussex BN11 1LD  
Tel: 01903 832 000  
Fax: 01903 821 832

#### SOUTH WEST

Manley House  
Kestrel Way  
Exeter EX2 7LQ  
Tel: 01392 444 000  
Fax: 01392 444 238

#### THAMES

Kings Meadow House  
Kings Meadow Road  
Reading RG1 8DQ  
Tel: 0118 953 5000  
Fax: 0118 950 0388

#### WELSH

Rivers House  
St Mellons Business Park  
St Mellons  
Cardiff CF3 0EY  
Tel: 029 2077 0088  
Fax: 029 2079 8555

### SCOTTISH ENVIRONMENT PROTECTION AGENCY

#### HEAD OFFICE

Erskine Court  
The Castle Business Park  
Stirling FK9 4TR  
Tel: 01786 457 700  
Fax: 01786 446 885  
World Wide Web: <http://www.sepa.org.uk>

### REGIONAL OFFICES

#### NORTH REGION HQ

Graesser House  
Fodderty Way  
Dingwall Business Park  
Dingwall IV15 9XB  
Tel: 01349 862 021  
Fax: 01349 863 987

#### WEST REGION HQ

SEPA West  
5 Redwood Crescent  
Peel Park  
East Kilbride G74 5PP  
Tel: 01355 574 200  
Fax: 01355 574 688

#### EAST REGION HQ

Clearwater House  
Heriot-Watt Research Park  
Avenue North  
Riccarton  
Edinburgh EH14 4AP  
Tel: 0131 449 7296  
Fax: 0131 449 7277

### ENVIRONMENT & HERITAGE SERVICE

Calvert House,  
23 Castle Place,  
Belfast  
BT1 1FY  
Tel: 028 9025 4868  
Fax: 028 9025 4777

The 24-hour emergency hotline number for reporting all environmental incidents relating to air, land and water in England, Wales, Scotland and Northern Ireland.

EMERGENCY HOTLINE

0800 80 70 60



ENVIRONMENT  
AGENCY



ENVIRONMENTAL ALLIANCE – WORKING TOGETHER

# POLLUTION INCIDENT RESPONSE PLAN

For:

Nature of Business:

Date of Plan:

Review date:

Approved by:

Date:

Copies to:

Date Sent:

Environment Agency/SEPA/EHS .....  
Fire Authority .....  
Police .....  
Sewage Undertaker .....  
Water Supply Undertaker .....  
Local Authority .....  
Other .....

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## 2. EMERGENCY CONTACT DETAILS

Emergency Services:

999 or 112

Local Police:

Doctor:

Environment Hotline:

0800 80 70 60 (24hr Emergency Hotline)

Environment Regulator (Local Office):

Local Authority: .....

Office Hours

Out of Hours

Sewage Undertaker: .....

Water Undertaker: .....

Gas Supplier: .....

Electricity Supplier: .....

Waste Disposal Contractor: .....

Specialist Advice: .....

Specialist Clean Up Contractors: .....

## COMPANY CONTACTS: (Out of Hours)

Managing Director:

Site Manager:

Environment Manager:

Foreman:

Head Office Contact:

### 3. SITE DRAINAGE PLAN

## 4. OIL, CHEMICAL and PRODUCT INVENTORY

### Maximum Quantities at Peak Times

Trade Name	Chemical	Liquid/Gas or Powder	Container Size	Maximum Quantity