

Emergency Planning Working Group (EPWG) Good Practice Guide

Major Accident Hazard Pipeline (MAHP) Emergency
Response Plan, Guidance on Testing

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The guidance in this document represents what is considered by UKOPA to represent current UK pipeline industry good practice within the defined scope of the document. All requirements should be considered guidance and should not be considered obligatory against the judgement of the Pipeline Owner/Operator. Where new and better techniques are developed and proved, they should be adopted without waiting for modifications to the guidance in this document.

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1. INTRODUCTION

The Pipelines Safety Regulations (PSR) 1996 currently place a duty on Local Authorities to prepare emergency plans for pipelines. This document has been produced by UKOPA to provide guidance to parties involved in the testing of emergency plans for Major Accident Hazard Pipelines (MAHP).

In preparing the plan pursuant to the above, the authors have consulted the operators of the pipelines subject to the Regulations, the Health and Safety Executive, the emergency services and other appropriate agencies.

References to technical terms, terminology and associated detail have been produced in the Plans following consultation with individual Pipeline Operators and from reference to:-

- Statutory Instrument 1996 No. 825: Health and Safety, The Pipelines Safety Regulations 1996
- Health and Safety Executive 'A guide to the Pipelines Safety Regulations' 1996
- Health and Safety Executive 'Further Guidance on Emergency Plans for Major Accident Hazard Pipelines'
- Information for Local Authority Emergency Planners
- Civil Contingencies Act (2004), Emergency Preparedness Guidance (2012) and accompanying guidance
- JESIP (Joint Emergency Services Interoperability Programme)
 - METHANE is used in the UK

This document should be used in conjunction with the UKOPA good practice guides

- Major Accident Hazard Pipeline Emergency Response Plans: Emergency Plan Template (UKOPA/GPG/011 Reference 1)
- Major Accident Hazard Pipeline Emergency Response Plans: Testing and Exercising Pro-forma ((UKOPA/GPG/012 Reference 2)

2. SCOPE AND APPLICATION

2.1 Scope

The guidance in this document is applicable to all pipelines operated by UKOPA members that are classified under the PSR as MAHP. The guidance is also generally applicable to other non-MAHP pipelines operated by the UKOPA member companies although it should be noted that there is not currently a legal requirement to develop emergency plans for these pipelines. It should be noted however that products harmful to the environment should have environmental response plans in place, and would follow the good practice demonstrated within the documents.

2.2 Application

Under the PSR there is currently no requirement for testing and exercising pipeline emergency plans. However it is recognised that the testing and exercising of such plans are beneficial and allow appropriate evaluation and scheduling of such exercises to take place within individual companies.

The guidance in this document represents what is considered by UKOPA to represent current UK pipeline industry good practice within the defined scope of the document. All requirements should be considered to be guidance and should not be considered to be obligatory against the judgement of the Pipeline Owner/Operator. Where new and better techniques are developed and proved, they should be adopted without waiting for modifications to the guidance in this document.

3. PIPELINE EMERGENCY PLANS

3.1 Purpose of Local Authority Emergency Plans

The purpose of a local authority emergency plan is to ensure that the response of all key stakeholders to an accident protects the public and is co-ordinated in the most effective way.

It is important that the interpretation and approach between local authorities, pipeline operators, emergency services and other key stakeholders is clear and allocation of responsibilities in the event of an accident is transparent, so that the requirements for involvement in response are clearly understood.

3.2 Considerations

There is no provision for charging by the Local Authorities to pipeline operators for testing of emergency plans. Before any test of a pipeline emergency plan is carried out, the Local Authority should reach agreement with the operator on the scale and scope of the test. Consideration should be given to involving all relevant parties (including the Strategic level stakeholders).

3.3 Pipelines

As major accident hazard assets, pipelines have particular characteristics which are likely to affect the planning and resourcing of emergency plan and procedure tests, and should be taken into account. The scope and scheduling of any planned testing covering specific aspects may need to accommodate specific local requirements. Tests should be planned and co-ordinated to be efficient and effective and to maximise the value obtained. An auditable process for documentation of programmes, decisions and actions raised in testing of pipeline emergency plans which demonstrates compliance with the Regulations is therefore recommended.

3.4 Testing of Emergency Plans – Aims and Objectives

The duties and guidance for the preparation of and charging for preparation of, emergency plans for MAHPs are defined in PSR 1996. This document covers guidance relating to the testing of emergency plans and procedures. The document stresses the importance of dovetailing operators' arrangements with those of the local authority, and the importance of active co-operation and co-ordination during an emergency.

Testing of plans and procedures should ensure that communication information is correct, communication links are active, responsibilities are clear and complete, and all aspects of response to the emergency are covered.

Testing offers local authorities, emergency services and pipeline operators a valuable opportunity to build up levels of understanding that can be reflected in the review and subsequent revision of both the pipeline emergency plan, and other emergency response plans. Experiences gained and lessons learned also have a transfer value, and thought should be given as to how they might be shared on a wider basis.

On behalf of UKOPA, the Emergency Planning Work Group (EPWG) will, where possible, review exercise reports, carry out post-exercise appraisals and extract the learning obtained to share with Operators.

3.5 Characteristics Particular to Pipelines

As major accident hazard assets, pipelines have particular characteristics which require consideration when planning and co-ordinating emergency plan tests. These characteristics are summarised as follows:

- Pipelines are long, linear distributed assets which are laid on 3rd party land and cross boundaries of several LAs
- Pipelines are generally remotely located in rural areas, are unmanned and remotely operated.
- Most pipelines are buried, so the general public may not be aware of pipeline presence/ location
- In the event of an incident, the Emergency Services are likely to be the first to be notified, and could be the first to arrive at the scene of the incident
- Rendezvous points may not be known in advance.

The above characteristics are likely to affect the scope, scale and scheduling of reasonable emergency plan tests and such issues should be clearly documented and reflected in any schedule of testing.

The emergency response plan should include a process in which the pipeline details, route and infrastructure are reviewed to identify:

- New additions and major modifications to the pipeline (including change of operator)
- New developments in the vicinity of the pipeline
- Any changes in organisation of any party involved in emergency response
- Advances in technical knowledge, particularly those which may lead to a better understanding of hazard and risk consequences
- Knowledge gained as a result of major incidents.

3.6 Testing of Characteristics Particular to Pipelines

Based on the characteristics described above, the following aspects are of particular importance in testing of pipeline emergency plans:

- The diagnostic period – including initial reporting and mobilisation
- Communication between all agencies
- Interface with the media (including social media) and provision of information to the public.

3.7 Testing

Where a pipeline carries across several local authority areas and is controlled by the same operator, the scope for joint testing arrangements should always be considered by the respective local authorities in an effort to avoid any unnecessary duplication of resource and effort, by all likely to be involved. Where joint testing is not appropriate, it is important that local authorities agree phased test arrangements with the operator.

In planning the extent of test arrangements, the local authority should set out to reach agreement with the pipeline operator, the emergency services and adjacent local authorities on the arrangements to be put in place. An exercise planning meeting(s) should be arranged which fully documents, as an auditable stage in the local authorities management of the programme of testing, the aim, objectives, scope and scale of the test. The elements of the plan to be tested should be clearly defined, together with the programme of testing of other aspects of the plan to demonstrate that all relevant aspects are tested. The meeting(s) should confirm and record agreement between the local authority(ies) and pipeline operator(s) regarding all aspects of the operator's involvement in the test.

3.8 Objectives

The key objectives of any test are:

- To validate the pipeline emergency plan
- Test characteristics particular to pipelines
- Provide training opportunities
- Ensure the response of pipeline operators, emergency services and other key partners dovetails under the LA plan
- Ensure that programmes, decisions and actions raised in testing pipeline emergency plans are auditable.

3.9 Scope

The scope of the test should cover the characteristics particular to pipelines, and should be sufficient to validate the plan and ensure it is adequate.

The scope of a pipeline emergency plan test would normally include:

- Define what, how and when to test
- Incident identification
- Process for establishing communications
- Strategy for mobilisation of resources
- Emergency response by all agencies

It would not normally include physical deployment of resources, off-site support and welfare facilities stand down and recovery and restoration, all of which are general to all emergency response requirements.

4. METHODS

Various methods can be applied to the testing of pipeline emergency plans:

4.1 Communication Exercises

Communication exercises test the essential direct links, contact numbers and contact details which are required in the event of an emergency.

Communication exercises in which the direct communications links and contacts between key stakeholders are tested to confirm accuracy and reliability are an essential requirement.

4.2 Control post exercising

Control post exercising is the recommended method for testing communications, which is an essential component of the emergency plan and must be included in every test programme.

A control post communication exercise examines the adequacy of communications between all key players in an emergency. Testing in this way involves resources based at the posts and locations that they would take up in the event of an accident. This means that without deploying any resources, personnel work through the communications involved in the roles, decisions and actions that arise in response to an accident. The exercise may include simulating some of the potential problems that can be experienced during real incidents e.g. mobile black spots, or system overloads.

4.3 Table Top Exercises

Table top exercises bring together the appropriate personnel and resources in one place to work through their roles in the event of an emergency in a realistic way. Table top exercises are flexible, and can test the response to more than one of the identified hazards with very little additional effort and expense.

By using this method, time outs can be easily incorporated to the day, which can offer essential time to stop, reflect and move on, or to simply move the scenario along in sensible manner. The round table approach brings together all the required personnel to one place, which aids the development of the relationships between all participants

4.4 Seminar, Workshop or Discussion Based Tests

These test exercises are aimed at informing participants about the organisation and procedures which would be invoked in response to an incident. This approach can be used to provide information on current developments, and generally focus on particular aspects of response to an accident.

4.5 Live Exercises

Live exercises involve the deployment of appropriate resources in a simulation of their actual response to an accident scenario selected from the identified hazards. This type of testing is time-consuming and resource intensive, and requires careful planning to ensure maximum benefit is gained.

4.6 Other methods of exercising

Other method of exercising do exist, such as

- Internet-based Communications Software
- Information Technology
- Virtual Reality Systems

These systems being developed allow realistic simulations of accidents and the response to them. Such systems have the potential to enable effective and practical testing, and to enhance the scope of the exercise.

Table top testing is considered to be a relevant and effective means of testing emergency plans, and is the recommended method for testing of pipeline emergency plans.

5. PLANNING AND CO-ORDINATING

The test scenario and the scope and scale of a test of the pipeline emergency plan should be agreed between local authorities, pipeline operators and emergency services at an exercise planning meeting, held before the test is carried out, and developed at any subsequent planning meetings required.

The exercise planning meeting should be fully documented, as an auditable stage in the management of the testing. The aims and objectives, scope and scale of the test with respect to the elements of the plan which are being tested, including how the value of the test is maximised and how learning will be shared, should be clearly documented. The benefit of the test to all partners involved should be considered, to ensure that the value of the test is maximised at the earliest opportunity and learning is shared.

Pipelines cover large distances and are likely to cross the boundaries of several Local Authorities and emergency service organisations, so any tests should be planned to cover a practical geographic area which enables the interfaces between key partners to be examined.

Emergency plan tests should be supplemented by operational checks, for example accessibility to critical locations on the pipeline route by the emergency services.

In selecting the geographic area for, and therefore participants in, the test, consideration of the use of Police Authority Areas is recommended, but other locally determined areas or groups may be determined. However, the selected geographic area should take account of local requirements and enable maximum benefit to be gained.

Where possible the test should involve more than one pipeline operator in order to ensure maximum benefit and learning. As pipelines are remotely located and their operation is unmanned, the diagnostic period may involve interfaces between the emergency services and all pipeline operators present. In addition, the most effective response to an accident may involve input from more than one pipeline operator.

Test programmes should be co-ordinated with adjacent areas to ensure reasonable involvement of the operational resources. In many cases, pipeline operators have responsibilities for pipelines which cross the boundaries of several Local Authorities and emergency service organisations. Test programmes should therefore be co-ordinated to minimise the disruption to operational resources caused by involvement in a number of different tests, and programmed with them to ensure plans are adequately tested without placing unrealistic burdens on any of the participating agencies.

6. EVALUATION

The key stages test should be identified and reviewed in accordance with HS(G)65 principles, and each stage should be evaluated in a structured way to identify shortcomings, successes, learning points and actions. Once actions have been identified, a programme, responsibilities and timescales to address these should be established.

Debriefings following an emergency plan test should be carried out in an open and blame free atmosphere. This should allow any problems in implementing the emergency plan to be identified, the reasons for the problems to be discussed and appropriate solutions to be considered.

Debriefings should be organised to ensure involvement by all relevant parties, and scheduled appropriately, i.e.

- a) On the day multi-agency debriefing, involving all key partners involved in the test
- b) Follow up meeting to obtain direct single agency feedback if required
- c) Test report – including a summary of learning points and actions with responsibilities and timescales for completion
- d) Communication of lessons learned to other LAs and operators
- e) Ensure that lessons learned are fully captured and embedded into the next update / iteration of the LA MAHP Emergency Response Plan.