

Pipelines Safety Regulations 1996

ACoP and Guidance to support amendments to Regulations 25 and 26 covering Pipeline Emergency Plan Testing and Charging

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Prepared by: UKOPA Emergency Planning Work Group (EPWG)
V Bowman - EPS/Chief Emergency Planning Officer, Tyne & Wear
I Shuttleworth - LGA/Chief Emergency Planning Officer, Derbyshire
D McIntosh - Aberdeen City Council EPO, Grampian Emergency Planning
A Thayne - HSE (HID)
N Briscoe - HSE (Policy)

The Pipeline Safety Regulations 1996 (PSR) includes a duty on local authorities to prepare and review emergency plans for major hazard pipelines. There is currently no requirement for the local authority to test the plan or to charge the operator for any testing that is carried out (charging is only a feature for preparing the plans). HSE proposed amendments to Regulations 25 and 26 to place a duty on local authorities to test the pipeline emergency every three years, and to make provision for local authorities to charge the pipeline operator for testing of the emergency plan.

This document sets out the existing regulations, proposed changes and the guidance that would support it, as agreed by UKOPA, Local Authority Emergency Planners and HSE HID in December 2002 following extensive discussion and consultation. The proposed amendments to PSR 1996 have been withdrawn, and there are currently no plans to change the existing duties. It is considered that the proposed changes are likely to be progressed at a future date.

This document therefore provides a detailed record of the issues involved and the status of agreement achieved between key stakeholders. The formats included are:

Regulation text is shown in bold italics.

Mandatory requirements for compliance and agreed as ACoP is given in red, bold text.

Guidance for compliance is given in normal text, underlined where the guidance is new and additional to existing guidance for regulations 25 and 26.

Paragraph numbering relates to this document only.

Emergency plans in case of major accidents

25. *-(1) A local authority which has been notified by the Executive that there is, or is to be a major accident hazard pipeline in its area shall before the pipeline is first used or within 9 months of such notification, whichever is later, and subject to paragraph (5), prepare an adequate plan detailing how an emergency relating to a possible major accident in its area will be dealt with.*

(2) In preparing the plan pursuant to paragraph (1) a local authority shall consult the operator of the pipeline, the Executive and any other persons as may appear to the authority to be appropriate.

(3) A local authority which has prepared a plan pursuant to paragraph (1) shall at suitable intervals not exceeding 3 years -

(a) review and where necessary revise the plan; and

(b) test the plan and take reasonable steps to arrange for the emergency services to participate in the test to such an extent as is necessary,

and any such review shall take into account changes occurring in the area of the local authority and within the emergency services concerned, new technical knowledge, and knowledge concerning the response to major accidents.

(3A) The local authority shall endeavour to reach agreement with the operator of the pipeline and the emergency services as to how the plan is tested.

(a) A local authority which has prepared a plan pursuant to paragraph (1) shall take reasonable steps to put it into effect without delay when an emergency for which it was prepared occurs.

(b) in paragraph (6) by substituting the words "in relation to a single plan prepared by them" for the words "where they prepare a single plan"

(4) The operator of a major accident hazard pipeline shall ensure that every local authority through whose area the pipeline will pass is furnished promptly with such information as it may reasonably require in preparing the plan referred to in paragraph (1).

(5) It shall be deemed to be sufficient compliance with the requirement in paragraph (1) as to the time by which a plan is to be prepared, where such time is exceeded by reason of obtaining of the information referred to in paragraph (4) which has been promptly required.

(6) Where a pipeline is to pass through the areas of two or more local authorities the duties under this regulation may be discharged by them in relation to a single plan prepared by them.

ACoP

1. The pipeline emergency plan test should address characteristics specific to pipelines, which are long, linear distributed assets laid on 3rd party land, generally in rural areas, and are buried and remotely operated so the general public may not be aware of their presence. The following aspects are of particular importance in testing pipeline emergency plans:

- the diagnostic period, including initial reporting and mobilisation**
- communications between all agencies**
- interface with the media and provision of relevant safety information to be relayed to the public.**

2. Table-top testing is the recommended method for testing pipeline emergency plans, although other methods are available. Table top testing is

recommended as this brings together all appropriate personnel in one place to work through their roles and responsibilities, is flexible and can test the response to more than one of the identified hazards effectively and by its nature allows all participants to gain an overview of proceedings.

3. Table top testing should be supplemented by control post testing, which confirms the accuracy and reliability of direct communication links between key agencies and is therefore the recommended method of communications testing.

4. Local authorities should agree the test scenario and the scope and scale of the test of the pipeline emergency plan with the pipeline operator and the emergency services at an exercise planning meeting(s) held before the test is carried out. The agreement of the aims, objectives, scope and scale of the test should be clearly documented. The elements of the plan to be tested should be clearly defined and agreed with the pipeline operator, together with the programme for testing of all relevant aspects of the plan over the three year period specified in the Regulations.

5. Tests should be planned to cover a practical geographic area which enables the interfaces between key agencies to be examined. Where relevant, the test should involve more than one pipeline operator.

6. Test programmes should be co-ordinated with adjacent areas to ensure reasonable involvement and minimal disruption of operational resources.

Guidance

7. Local Authorities, as defined in the regulations, once notified of a pipeline by HSE, are required by this regulation to prepare an emergency plan for each major accident hazard pipeline passing through their area. The requirement under these

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Regulations is for emergency plans which should specifically relate to the protection of the health and safety of people, not environmental damage.

8. Though Local Authorities will already have general emergency plans, it will be necessary to either have pipeline specific plans or to include specific reference to each major accident pipeline and how their emergency arrangements are integrated into the existing emergency provisions in the area covered by the authority.

9. It is intended that emergency plans should only be drawn up or amended after consultation with bodies who may be able to contribute information or advice. In all cases this will include the emergency services (fire, police and ambulance), health authorities, and in Scotland, health boards, hospitals, the pipeline operators, adjacent local authorities and HSE. Other bodies to be consulted will depend on circumstances and could include other local authorities further along the route of the pipeline, government departments dealing with agriculture, the Environment Agency or its Scottish equivalent, the Scottish Environment Protection Agency, and companies providing water services.

10. Full liaison and effective two-way flow of information is required between the pipeline operator and the local authority. Information from the pipeline operator is needed to enable the authority to draw up the emergency plan, and information from the authority should be available to the pipeline operator to assist in the preparation of the pipeline emergency procedures so as to achieve dovetailing between the pipeline emergency procedures and the LA's emergency plan.

11. The pipeline operator should provide information about the type and consequences of possible major accidents and the likely effects. Information should also be provided on the route of the pipeline, the fluid conveyed and the operating conditions, location of shut-off valves and emergency control arrangements.

12. In the event of an incident involving a pipeline, it is important there is effective communication between the emergency services and [the] pipeline control centre.

13. The emergency plan should be a written document, in a format which can be used readily in emergencies, and kept up to date to reflect changes in risk, procedures, hardware and personnel. The authors of the plan must address all relevant aspects including the following:

- a) the types of accidents to people to be taken into account;
- b) organisations involved including key personnel and responsibilities and liaison arrangement between them;
- c) communication links including telephones, radios and standby methods;
- d) special equipment including fire fighting materials, damage control and repair items;
- e) technical information such as chemical and physical characteristics and dangers of the substance conveyed;

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- f) information about the pipeline including route of the pipeline, location of shut-off valves and emergency control arrangements;
- g) evacuation arrangements
- f) contacts and arrangements for obtaining further advice and assistance e.g. meteorological information, transport, first aid and hospital services, water and agricultural authorities.
- i) arrangements for dealing with the press and other media interests.
- o) arrangements for the review, test and revision of the emergency plan.

14. Since an incident on a pipeline could occur at any point along its length, it is often inappropriate to provide location specific advice along the whole length of the pipeline. The plan is likely to focus on those parts of the pipeline which are vulnerable to damage such as road, rail and river crossings and other areas of higher risk. Pipeline plans for this reason are likely to be generic and flexible in nature.

15. In discharging their duties, local authorities must take reasonable steps to ensure that they are preparing plans which will prove adequate in the event of major accidents. This will involve checking and testing the various components of each plan during its development.

16. The duty to implement the emergency plan lies with the local authority and not the individuals who actually prepare the plan. That duty will have been discharged when there are systems in place to ensure that no reasonable delays between the discovery of a major accident, or an incident that may lead to a major accident, and

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subsequent activation of the emergency plan. There should be a clear and logical decision making system in place to ensure that as soon as a relevant event has occurred, the plan will be initiated immediately, by those duly authorised.

17. HSE guidance on pipeline emergency plans and their preparation has been published and is contained in the document "Further Guidance on Emergency Plans for Major Accident Hazard Pipelines". Copies are obtainable either from HSE Books or good booksellers, quoting ISBN reference 0-7176-1393-3.

Relationship with other regulations

18. Under The Control of Major Accident Hazards Regulations 1999 (COMAH), those preparing emergency plans have a duty to take reasonable steps to put their plans into effect without delay when a major accident occurs, or when an uncontrolled event occurs, which could reasonably be expected to lead to a major accident. Explanatory guidance - Emergency Planning for Major Accidents [ref no] - has been published and is obtainable from HSE Books.

19. Each set of guidance 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. A local authority should consider how all the requirements covering off-site emergency plan implementation under COMAH, might link with PSR, in the light of its overall emergency planning arrangements and emergency response

20. The local authority shall review and test, and where necessary, revise and update the plan at suitable intervals so that it can be relied upon to work effectively in an emergency. The maximum interval for both review and test of the emergency plan should not exceed three years.

21. The review is a fundamental process which examines the adequacy and effectiveness of all the components of the emergency plan and how they operate and function together. The review process by its very nature will also demonstrate that work on the emergency plan is ongoing and is clearly recognised as a live document.

22. The review process should take into account:

- i) new additions and major modifications to the pipeline, including change of operator;
- ii) new developments in the vicinity of the pipeline;
- iii) any changes, including organisational restructuring, in the emergency services and others, identified as relevant to the plan;
- iv) advances in technical knowledge, which might lead to greater understanding of hazard and the risk consequences;
- v) knowledge gained as a result of major incidents either on the specific pipeline or elsewhere;
- vi) the testing of the emergency plan;

and,

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vii) the views of pipeline operators, emergency services and those others who may have an interest.

23. An emergency plan test is a task or series of tasks undertaken to give confidence in the accuracy, completeness and practicability of the emergency plan. The local authority must undertake a reasonable level of testing in order to have confidence in the plan. Whilst the cost and resource implications of applying the test arrangements should be considered by the local authority, this should be done without jeopardising health and safety, with the task or tasks chosen being justified and quantified in terms of risk.

24. The method recommended for testing a pipeline emergency plan is a table top exercise, as this brings together all appropriate personnel in one place thus allowing all participants to obtain an overview of issues associated related to emergency response to accidents affecting buried pipelines located remotely on 3rd party land. In addition, this method of testing is flexible and can test the response to more than one of the identified hazards with little additional effort. Control post testing is recommended for communications testing, in which direct communication links and contacts between key parties are tested to confirm accuracy and reliability. Communications are an essential component of the emergency plan and must be included in every test programme.

25. Alternative methods of testing are:

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i) Live Exercises, which involve the deployment of resources in a simulation of their actual response to an accident scenario selected from identified hazards. Whilst they have clear “hands-on” benefits for the staff involved, they are time consuming and resource intensive, and their use needs to be carefully considered in order to gain the maximum benefit

ii) Seminar, workshop or discussion based tests, which are aimed at informing participants about the organisation and procedures which would be invoked in response to an accident. This approach can be used to provide information on current developments, and generally focus on particular aspects of response to an accident.

iii) Internet-based communications or virtual reality systems, which can be used to generate 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.

26. The test will usually examine the response immediately following the report of an incident. Testing should be carried out at least once every three years, or as a managed programme of tests of specific aspects of the plan carried out over a three year period.

27. Tests are normally based on a simulated event, or events, drawn from local circumstances and the hazards identified by the pipeline operator, and agreed with the pipeline operator.

28. The emergency plan test should be supplemented by operational checks, for example accessibility to critical locations on the pipeline route by the emergency services. Whilst being able to gain access to any point along the route of the pipeline is important, for certain parts access is likely to be critical. By identifying those sites with potential access problems, and then testing out the logistics of actually getting emergency vehicles and equipment to them, might be considered worthwhile. Alternatively, key sites could be identified for visit by emergency personnel, where they would assess accessibility.

29. The testing of a pipeline emergency plan should not be confused with the normal training arrangements of any of the parties involved. Whilst testing can provide a training benefit, the purpose of the test is to demonstrate that the plans are accurate, complete and practicable.

30. Testing offers local authorities and the emergency services 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 local authorities should give thought to how they might be shared with other local authorities and emergency services.

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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, and unjustified costs falling on the pipeline operator. Even where joint testing is not appropriate, it is important that all the local authorities agree phased test arrangements with the operator.

31. 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 would fully document, as an auditable stage in the local authorities management of the programme of testing duties, 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 over the three year interval specified in the regulations. 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.

32. The scope of the pipeline emergency plan test should cover the characteristics particular to pipelines, and should be sufficient to validate the plan and ensure it is adequate. The scope would normally include:

- Incident identification
- Process for establishing communications

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- Strategy for mobilisation of resources
- Emergency response by all agencies.

33. It will be the role of the local authority to frame, and agree, the objectives for the test drawing from the objectives set by each participating organisation. Typical recommended objectives are:

- to validate the pipeline emergency plan
- to test characteristics particular to pipelines
- to ensure the response of emergency services, pipeline operators and other key agencies dovetails under the local authority plan.
- to ensure that programmes, decisions and actions raised in testing pipeline emergency plans are auditable.

34 Close liaison and active involvement with all participating organisations is essential to a successful outcome and the local authority should consider how this might be achieved. One option might be the setting up of a high level liaison group, with senior representatives from all participating bodies, advising on all aspects of emergency planning, including, the appropriateness of test arrangements proposed, consistency of approach by all the parties involved, linkage with other legislative requirements, and liaison with other local authorities. Such a liaison group might also fulfil a disputes role, particularly where the local authority fails to reach agreement with the parties on the extent of its test proposals.

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35. Local authorities and other parties involved should consider the extent to which wider geographical groupings might be effective. The interfaces between key agencies should be examined. In selecting a geographic area for and therefore participants in the test, consideration of the use of for example, Police Authority Areas is recommended, but other locally determined groups may be identified. The selected area should take account of local requirements and enable maximum benefit to be gained.

36. Where relevant the test should involve more than one pipeline operator. 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 within the area. In addition, the most effective response to an accident may involve input from more than one pipeline operator.

37. Further guidance on preparing, reviewing, revising and testing of emergency plans has been published by HSE and is contained in the publication“.....”, and is obtainable from
[THE PLAN IS TO REVISE THE EXISTING GUIDANCE ON EMERGENCY PLANS TO INCLUDE SECTIONS ON TESTING AND..... - THE PIPELINE EMERGENCY PLANNING FORUM COULD BE CALLED UPON TO PROVIDE EXPERTS TO CUSTOMISE COMAH GUIDANCE TO REFLECT PIPELINES]

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38. For all new pipelines, the plan is required before the pipeline is brought into use, or within nine months of notification of the pipeline to the LA by HSE, whichever is the later.

Charge by the local authority for a plan

26. *-(1) A local authority may charge the operator of a pipeline for performing its functions under regulation 25.*

(2) The fee shall not exceed the sum of the costs reasonably incurred by the local authority in performing its functions under regulation 25 in relation to the pipeline including (but without prejudice to the generality of the foregoing provision of this paragraph) any costs reasonably incurred by the local authority in arranging for the emergency services to participate in the testing of the plan relating to it.

(3) In determining the fee no account shall be taken of costs other than the costs of discharging functions which relate to the protection of health or safety of persons and which were costs incurred after the coming into force of these Regulations.

(4) The local authority may determine the cost of employing a graded officer for any period on work appropriate to his grade by reference to the average cost to it of employing officers of his grade for that period.

(5) When requiring payment the local authority shall send or give to the operator of the pipeline a detailed statement of the work done and costs incurred including the date of any visit to any place and the period to which the statement relates; and the fee, which shall be recoverable only as a civil debt, shall become payable one month after the statement has been sent or given.

ACoP

39. A cost model and a reasonably accurate estimate of the costs of the planned test should be presented to the pipeline operator(s) for agreement at the exercise planning meeting, or otherwise at the earliest opportunity and before any significant costs are incurred. The cost model should include the system for recording work done by the local authority to enable costs to be recovered. Principles for handling additional essential but unplanned costs should be agreed.

40. Reasonable costs include arranging and attending planning meetings, preparation of exercise documentation, set-up of the table top exercise (room hire, catering etc) participation in the exercise and preparation of the exercise report.

41. Local authorities should present charges to operators as itemised, detailed statements of work done, resources used and costs incurred, in accordance with the cost model agreed at the exercise planning meeting.

Guidance

42. This regulation enables the local authorities who are responsible for preparing, testing and keeping up to date emergency plans required under regulation 25 to recover the cost of undertaking this work from the pipeline operator, including any costs incurred by the emergency services in testing the plan. The provision does not extend to the costs incurred by the emergency services in the preparation, review and revision of the emergency plan.

43. The local authority, when preparing or updating the pipeline emergency plan,

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should enter into full discussion with all likely to be involved. This will always include the pipeline operators and the emergency services. A fundamental area for discussion and agreement will always be the detailed arrangements for testing the emergency plan. Whilst the responsibility for testing the plan remains with the local authority, it must always be able to demonstrate that the approach chosen and its frequency can be justified. It is important that at this early stage the local authority provides the pipeline operator with indicative costs, and what they include, in respect of itself and the emergency services.

44. The local authority may only recover costs that have been reasonably incurred. In locations where several pipelines are co-located, the local authority may decide to prepare one emergency plan covering all the pipelines. In such an event the each pipeline operator should be charged for only that part of the costs which can be attributed to the pipeline under his control.

45. The charge made by the local authority may only be for its costs of preparing the plan, plus its own and the costs of the emergency services for testing the plan itself, and of any changes necessary to keep it up to date. It does not cover the cost of purchase of emergency plant and equipment (e.g. fire appliances) considered necessary for the operation of the plan, and would not normally include physical deployment of resources, off-site support and welfare facilities, stand down, recovery and restoration, which are not specific to pipeline emergencies. Furthermore, the charge should relate only to those parts of the emergency plan concerned with the health and safety of people, not with environmental damage. However, local

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authorities may elect to test such issues in conjunction with the pipeline emergency plan test.

46. Where the test arrangements are extended beyond ensuring their accuracy, completeness and practicability, and broadened to include training, or the requirements of other regulations, the additional charges should not be passed on to the operator.

47. The charge made may be based on the time spent by officers of appropriate grades. The average costs of their employment overheads as well as salary may be taken into account. A local authority may decide to contract -out some part of the work to another organisation, in which case, the local authority may recover the costs associated with the contract, provided that they are still reasonable.

48. In presenting a charge to a pipeline operator, the local authority should provide an itemised, detailed statement of work done and costs incurred, in a form discussed with the operator. Any dispute arising over the charge has to be decided in the civil courts, HSE has no enforcement role for the recovery of cost incurred by a local authority in respect of emergency planning.

Relationship with other regulations

49. Part 4 of the Control of Major Accident Hazards Regulations 199x (COMAH), details the regulatory provision for fixed installations with regard to emergency

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planning and the arrangements for testing and charging. As actions to be undertaken by the local authority to fulfil their duties under the emergency planning requirements of both sets of regulations take a similar form, they should consider the benefits of setting up a single accounting system. Local authorities should look at ways in which the testing arrangements set for pipeline emergency plans and off-site emergency plans for fixed installations may be considered together. Where this is not practicable, lessons learned from one situation, at least, should be considered as responses to another.