

**Appendix 15.5    -    HP Pipelines Special Requirements**



# LINEWATCH

*Watch out - there's a pipeline about!*

Revision No. **16.03**

Note: This manual supersedes all previous issues, which should now be sent for recycling.

## special requirements for **safe working** in close proximity to high pressure pipelines

For pipelines owned and or operated by:

**BPA**

**CATS**

**Centrica Energy**

**ConocoPhillips**

**E-ON**

**Essar Oil (UK) Ltd**

**Esso Petroleum Company Limited**

**CLH Pipeline System**

**Humbly Grove Energy**

**IGas**

**Ineos**

**Mainline Pipelines Limited**

**Manchester Jetline Limited**

**Marchwood Power**

**National Grid (Gas Transmission)**

**Petroineos**

**SABIC**

**Total LOR**

**UNIPER**

**WINGAS**

### **Linewatch Products Available**

**Markerpost Brochures**

**Toolbox Talk Handouts**

**Linewatch Presentations**

**Landowner Brief**



**Awareness and preparation is the key to safe excavation**

# What to do in an emergency

Signs of a possible pipeline leak may include: pools of fuel, dirt or dust blowing in the air, hissing sounds, gas or petroleum odours, bubbles in standing water, dead or discoloured vegetation and ice on the ground. If you notice any of these in the vicinity of a pipeline, treat as an emergency.

## In the event of an emergency

**Remove all personnel immediately from the vicinity of the incident**

**Extinguish any naked flames and shut down all working plant from the immediate area (remember, vapours will travel downwind).**

**Inform the emergency services. Dial 999 and call the Fire Brigade and Police.**

**If known, call the Pipeline Operator. There will be a pipeline marker nearby with emergency contact information.**

**Exclude all vehicles and personnel from the vicinity.**

**Do not attempt to seal any leaks.**

**Do not attempt to extinguish the flame if the leak has ignited.**

## Action to be taken if the pipeline has been damaged but has not caused leakage:

**a) Contact the Pipeline Operator or his Agent.**

**b) Do not backfill and await the representative of the Pipeline Operator to inspect the damage and decide on the action required.**

**c) If damage to the pipeline does not cause a leak do not try and hide it. Dents and gouges in a pipe may cause it to fail at a later time with potentially catastrophic consequences. Report all damage, however seemingly insignificant, to the Pipeline Operator.**

**This manual relates to the following pipeline systems only**

<b>BPA</b>	<b>0800 585 387</b>
<b>CATS</b>	<b>01642 546404</b>
<b>ConocoPhillips</b>	<b>01507 473 553</b>
<b>Centrica Energy</b>	<b>0800 371 726</b>
<b>Essar Oil (UK) Ltd</b>	<b>0800 220 959</b>
<b>Esso</b>	<b>023 8089 1541</b>
<b>E-ON</b>	<b>01606 77 508</b>
<b>CLH PS Aldermaston (including Inverness – Lossiemouth)</b>	<b>0118 971 2021</b>
<b>CLH PS Rawcliffe (including Linkwood - Leuchars)</b>	<b>01405 839 212</b>
<b>Humbly Grove Energy</b>	<b>01256 381625</b>
<b>IGas</b>	<b>01522 754 524</b>
<b>Ineos (including TSEP)</b>	<b>0800 374185</b>
<b>Mainline</b>	<b>01646 649 999</b>
<b>Manchester Jetline Limited</b>	<b>01244 665 989</b>
<b>Marchwood Power</b>	<b>0800 328 6030</b>
<b>National Grid</b>	<b>0800 111 999</b>
<b>Petroineos</b>	<b>0800 374185</b>
<b>SABIC TPEP (West)</b>	<b>01928 572 580</b>
<b>SABIC TPEP (East) and WGEP</b>	<b>01642 452 461</b>
<b>Total Finaline</b>	<b>0800 592 246</b>
<b>Total Colnbrook</b>	<b>020 7339 8150</b>
<b>Total Colwick</b>	<b>01159 615 785</b>
<b>Uniper</b>	<b>0800 389 4795</b>
<b>Wingas</b>	<b>01507 338 360</b>

## Special requirements for safe working in close proximity to high pressure pipelines

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(List of pipeline routes available online at [www.linewatch.co.uk](http://www.linewatch.co.uk))

It is emphasised that not all pipelines in the UK are represented and that owners of pipelines, even those who do not appear in this booklet, should still be consulted regarding procedures to be followed when working close to their pipelines.

### General Information

- All the pipelines are steel and operate at high pressure containing petroleum products or gas.
- Sizes vary from 100mm, (4") to 1220mm (48") diameter.
- Nominal depth of cover is 0.9m, (3ft) although in some locations this cover may be less. e.g. Canal towpaths or rocky areas etc.
- The sponsor/employing authority (and/or their contractor) shall be responsible for all liability under the Health and Safety at Work Act, 1974, etc.
- All the pipelines are covered by the Pipeline Safety Regulations and require all parties to work safely so that no damage is caused to a pipeline.

## Summary of Guidance

The purpose of this booklet is to provide guidance on the basic requirements for safe working in close proximity to buried pipelines. The guidance is not exhaustive and so a safe system of work, including any specific requirements of the Pipeline Operator, should be agreed prior to work commencing.

For the purposes of this document the term “easement”, as used, includes property rights arising under Deeds of Grant, Wayleave and other rights in land granted.

To fulfil their own duty, the Pipeline Operators require notification of the intention to carry out underground works when within 50 metres of the pipe and in the same parcel of land, i.e. not separated by a fence or other identifiable division. It is recommended that formal buried services searches are recorded on [www.linesearchbeforeUdig.co.uk](http://www.linesearchbeforeUdig.co.uk) website. This service is free to use. The Pipeline Operator is then alerted and able to make an appropriate response, especially critical when that work will be within the pipeline easement.

The Pipeline Operator is responsible for clearly marking the detailed route of the pipe (a free service) and to specify any constraints on the proposed method of working. All works require prior approval except certain routine agricultural operations; however, fencing, ditching, drainage operations, sub-soiling and mole ploughing must be notified. This is not an exhaustive list of works, please contact the Pipeline Operator.

When planning works, which could involve crossing or working within the easement, it is important that sufficient time for Approval by the Pipeline Operator is allowed prior to works commencing. In some circumstances this can take up to 13 weeks.

**Some Pipeline Operators may have their own specific requirements which will be made available by request.**

### Supervision of Works

The Pipeline Operators require strict controls to be applied on all third party works that could affect the pipeline, which are administered by the Pipeline Operator or Agent. The minimum controls are:

- A minimum of three working days prior notice shall be given by the third party to the Pipeline Operator or Agent before commencement of any works within 3m (10ft) of the pipeline. It should be noted that National Grid requires at least a week's notice.
- All works within the pipeline easement shall be attended by the Pipeline Operator or Agent and shall not commence without the written authority and supervision by the Pipeline Operator or Agent.
- There will generally be no charge for such attendance for the first three 8 hour working days. Thereafter, the costs may be recovered by the Pipeline Operator from the third party. Current contract rates for supervision charges will be provided by the Pipeline Operator to the third party on request.

***Details of the relevant Pipeline Operators or their agents are listed in this booklet.***

# Basic Guidelines for any work near Pipelines

- 1** In general, a **legal consent** or agreed level of supervision will be required **prior** to any works within the easement. Adequate time should be allowed for the completion of any consent. Prior to commencement of all works full details of the proposed work should be submitted to the appropriate Pipeline Operator or their Agent.
- 2** No raising or lowering of ground level throughout the easement is permitted without written consent from the Pipeline Operator. All excavations above, below or within 3m (10 ft) on either side of the pipeline must always be supervised by a representative of the Pipeline Operator. Manual digging will be employed unless another method is specifically authorised by the representative.
- 3 Protection** will be required over the pipeline at road crossings and parking areas, including temporary construction areas, typically, as per example (Appendix I). Under the supervision of the Pipeline Operator and prior to installation, the promoter shall expose the pipeline for the existing protective pipe wrapping to be inspected, repaired and then double wrapped at the Promoter's expense by a contractor approved by the Pipeline Operator. Some Operators employ other methods so agreement of the method is important before any investigation or removal.
- 4** The pipeline is **wrapped** to prevent corrosion and any **damage** to the pipe or its wrapping must be notified immediately to the Pipeline Operator or their Agent who will arrange for repairs to be carried out. The Pipeline Operator reserves the right to recover the cost of repairs.

- 5** Backfilling shall be in layers of maximum depth of 300mm (12 inches) and consolidated before any further backfilling takes place. Backfill must be free of flints or any other material, which may damage the anti-corrosion wrapping. If the backfill material is not suitable in the opinion of the representative of the Pipeline Operator, imported sand, pea gravel or other approved fine material shall be provided to give a minimum 150mm (6 inches) surround to the pipeline.
- 6** The easement shall be marked or pegged out and fenced off prior to works commencing. Agreed crossing points across the easement for construction machines shall be protected by plates, "Bog Mat", a temporary concrete slab or hard-core layers.
- 7** To prevent indiscriminate crossings along the pipeline, service crossings (i.e. drains, cables, pipes, etc.), should be grouped together at a common point. These should be ducted if possible. Any plant crossing the easement can be hazardous to the pipeline especially if the ground is soft or wet.
- 8** Where a **new service** passes under or over the existing pipeline, there should be ideally a 600mm (24 inches) clearance between them and cross at an angle of not less than 60°. A lesser clearance or angle of crossing will not be permitted without authority in writing from the Pipeline Operator or their Agent. A concrete separation slab, marker tiles or warning tape may be required. If the new service or works includes a high pressure gas pipe or other pipe containing material whose escape might endanger the pipeline(s), sleeving and/or construction in pre-tested pipe across the width of the easement may be required.

**9** Directional drilling, thrust boring or other **trenchless techniques** will be considered as an alternative method of crossing the pipelines subject to agreed supervision. A method statement complete with drawings for the completion of pipeline crossings using trenchless methods shall be approved by the pipeline operator. Approval by the Pipeline Operator shall in no way reduce the responsibilities and liabilities of the third party for the safe and successful completion of the crossing works. Clearance between the pipeline and the drilling auger (or similar) should be maximised. Ideally the minimum clearance shall be 1.5 metres.

**10** Pipeline marker posts shall be installed at the Promoter's expense each side of all road crossings and elsewhere as necessary to mark the pipeline route.

**11** No buildings, structures or caravans to be sited within the pipeline easement. The pipeline easement should always be free of obstructions as access to the easement and/or the pipeline is required at all times.

**12** No gas vermin eliminator or ignition based tunnel collapsing systems, eg. Rodenator, are to be used within 100 metres.

**13** No **explosives** are to be used within 400 metres (1300 ft) or pile driving, 3D seismic survey or bore holes within 30 metres (100 ft) of the pipelines without prior agreement with the Pipeline Operator. In all cases the maximum PPV at the pipeline is 25 mm per second.

**14** **Wind turbines** should be situated a minimum distance of one and a half times the mast height from the pipeline in line with current UKOPA guidelines. ([www.ukopa.co.uk/publications](http://www.ukopa.co.uk/publications))

**15** Where permission is granted for a new pipe, cable, etc., to cross a pipeline, that permission will only be granted subject to the following condition:

*"If at any time during the course of the new construction it is discovered that the Pipeline Operator requires to carry out emergency works on their pipeline then work on the new construction must cease until the pipeline repair work has been completed. This repair work will be carried out with the shortest possible delay. In these circumstances the Pipeline Operator will not be responsible for any delay or associated costs on the new construction."*

**16** **Tree planting** is restricted in the easement. Each Operator can give advice. Any approval will be subject to the Pipeline Operator retaining the right to remove all trees and shrubs which, in his opinion, might become a danger to the pipeline and, in consequence, a potential hazard to personal safety, or prevent access for maintenance purposes. Many garden shrubs are acceptable, but conifers are not acceptable.

**17** High voltage **electric cable** crossings may require special consideration.

**18** Attention is drawn to the fact that the pipeline is **cathodically protected**. This can corrode metal structures in the vicinity and it is the Promoter's responsibility to protect their constructions against this.

**The conditions mentioned above are common to most works but are not exhaustive. Other conditions may be imposed depending on the nature of the work.**

Prior to any work commencing the following applies:

- a)** The location of the pipe must be verified and marked on site by the Pipeline Operator's representative and witnessed by a representative of the Promoter or contractor.
- b)** On receipt of written approval of the proposed works, and subject to the approval, if required, of the Secretary of State and the landowner, the Promoter or contractor shall give not less than 3 working days notice to the respective Pipeline Operator or his Agent of intention to commence the works and access for them will be afforded at all times.
- c)** The Pipeline Operator may require the Promoter to mark out the easement with a paling fence or similar if this is considered to be in the best interest of a safe operation. Where access over the easement is required then protection to the pipeline must be considered.
- d)** Any work involving a naked flame or likely to cause a spark within 3m (10 ft) of an exposed section of a pipeline will only be permitted subject to approval of the methods by, and presence of, the representative of the Pipeline Operator. The Pipeline Operator reserves the right for his representative to check the availability of fire extinguishers on site to reduce the risk to the pipeline should the plant or equipment catch fire, and to prohibit any work until they are reasonably satisfied.

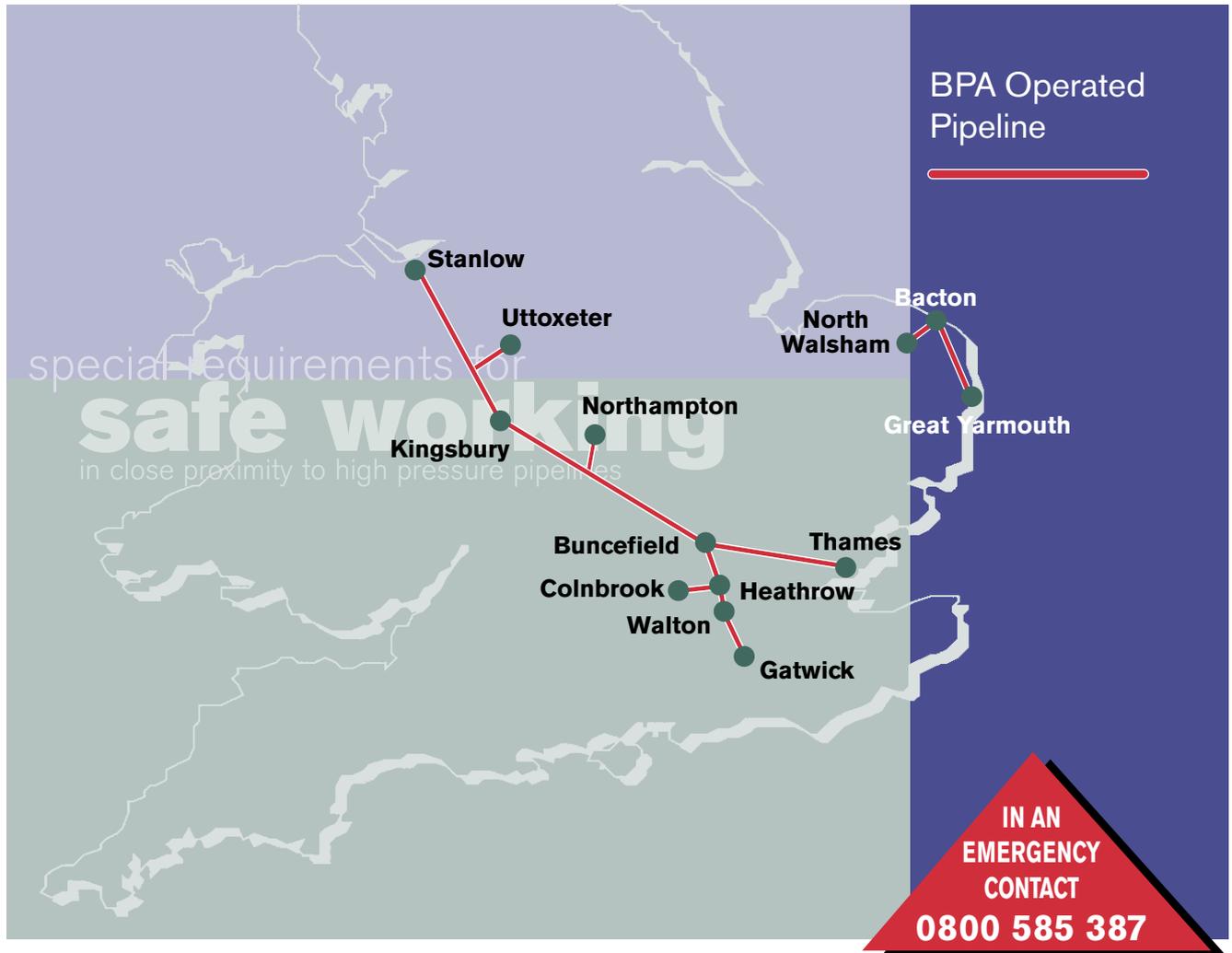
**e)** Cathodic protection of the pipelines is provided by an impressed current system and sacrificial anodes which could adversely affect any ferrous structure or service that crosses or runs parallel to the pipeline for any distance. It is recommended that test leads be installed at the point of intersection of the two to facilitate interference testing, according to BS EN 12954:2001, BS EN 13509:2003, BS EN13636:2004 and BS EN50162:2004.

The fitting of the test lead to the pipeline will be carried out by a representative of the Pipeline Operator and the two leads taken to a Cathodic Protection Test Post, generally supplied by them, installed at the nearest convenient point. Any work required will be at the expense of the Promoter. The Pipeline Operator does not accept responsibility for any damage to the new service by virtue of electric corrosion protection systems applied to the pipeline(s).

Alternatively, any third party works must not detrimentally affect the Pipeline protection either.

# BPA Operated

# pipelines



## BPA Operated

Contact for enquiries and general information:

*Agent:*

- Lands Department  
BPA  
5-7 Alexandra Road  
HEMEL HEMPSTEAD  
Hertfordshire HP2 5BS

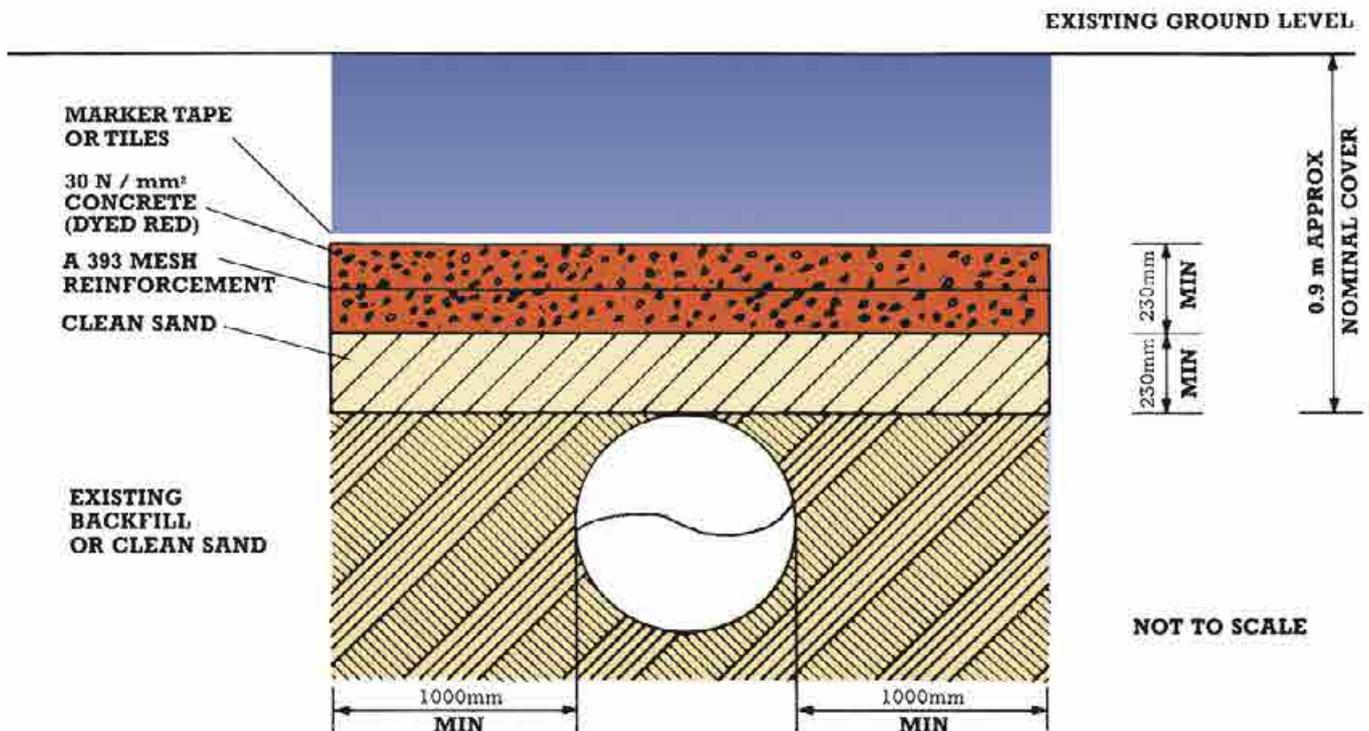
**In an emergency contact:  
0800 585 387**

Tel: 01442 242 200  
Fax: 01442 214 077  
Email: [lands@bpa.co.uk](mailto:lands@bpa.co.uk)

## Appendix I

### Typical sectional drawing and specification for temporary protection of Pipelines under carriage ways.

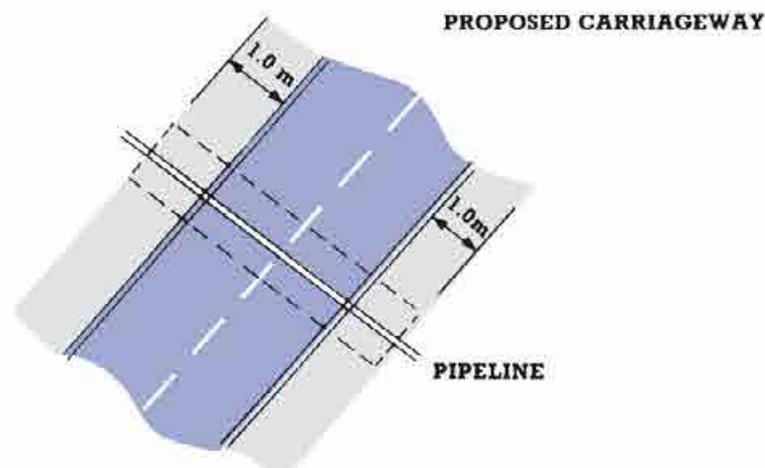
(Each case will be treated separately)



NOT TO SCALE

#### Notes:

1. Backfill between pipeline and concrete slab to be:  
**Either** existing backfill (undisturbed)  
**Or** sand clean of any inclusions.
2. The concrete slab is to extend a minimum of 1.0 metre (3'3") beyond the proposed crossing area, i.e.



# EMERGENCY NUMBERS



0800 585 387



01642 546404



01507 473 553



(South) Aldermaston  
Control:

0118 971 2021

(North) Rawcliffe  
Control:

01405 839 212



0800 220 959



023 8089 1541



01256 381625



0800 371 726



01606 77 508



01522 754 524



0800 374 185

**MAINLINE  
PIPELINES  
LIMITED**

01646 649 999



01244 665 989



0800 328 60 30



0800 111 999

0800 374 185



TPEP (West):

01928 572 580

TPEP (East) and WGEP: Colnbrook: 020 7339 8150

01642 452 461



**TOTAL**

Total Finaline:

0800 592 246

Colwick: 01159 615 785



0800 389 4795



01507 338 360

LINEWATCH WEBSITE

[www.linewatch.co.uk](http://www.linewatch.co.uk)