

SCANNED

**THE GOVERNMENT PIPELINE
&
STORAGE SYSTEM**

**STANDARD REQUIREMENTS FOR
CROSSING OR WORKING NEAR TO GPSS PIPELINES**

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1 PREFACE

1.1 Manager

The Government Pipeline and Storage System (GPSS) is managed by the Oil and Pipelines Agency (OPA) on behalf of the Secretary of State for Defence. These facilities are constructed and maintained under powers derived from the Requisitioned Land and War Works Act 1945 and 1948, and the Land Powers (Defence) Act 1958 (see also Section 2 of this document).

1.2 Operators and Agents

OPA, on behalf of the Secretary of State, employs facilities management contractors to operate different parts of the GPSS. These are referred to as "the Operator" in this document. OPA, via the land agent, where approached by any third party, will advise the third party of the appropriate operator for the area in question. Appendix 2 lists contact addresses for the various operators.

1.3 Variations

The requirements of this document represent OPA's minimum requirements. Any variations from these requirements will be considered by OPA on their technical, operational, and commercial merits. OPA reserves the right to charge any third party reasonable sums to cover the cost of any review of proposals of a third party which do not conform to these requirements.

1.4 Indemnities

A consent under Section 16 of the Land Powers (Defence) Act 1958 is required for most work within 3 metres of a GPSS pipeline (see Section 2 of this document). To enable such matters to be handled expeditiously organisations seeking consent are invited to enter into an undertaking to indemnify the Secretary of State against damage arising out of their work in the form OPA/IND/1 and consent may be granted in consideration of this undertaking. Government Departments and certain public bodies directly funded by the Treasury are exempt from this requirement

An appropriate signed Form of Indemnity MUST be in place before any work commences within the affected easement. Internal confirmation between the Contravention Supervisor and the administrator dealing with the Section 16 application must be obtained to ensure this statutory requirement has been satisfied. Additionally, operatives dealing with the contravention must ask to see a copy of the signed Form of Indemnity on site if doubt exists.

It must be emphasised that any subsequent purchaser of a property with a GPSS easement within its boundaries must enter into an indemnity equivalent to the one that the developer signs otherwise OPA reserve the right to recover any costs from the original developer.

1.5 Additional Requirements

The requirements contained in this document are not intended to be exhaustive. Further conditions may be imposed in particular cases.

1.6 Diversions

Where third party works require a diversion, lowering, or re-alignment of an existing pipeline, OPA will generally agree, if requested, to have such work performed on behalf of the third party. Such arrangements will only be made if the work can be carried out without detriment to the ability of the GPSS to fulfil its transportation functions safely; and if the third party agrees to fund the total costs and provide the new rights in land to enable the diversion or re-alignment to take place.

2 LEGISLATION AND WAYLEAVES

2.1 Legislation

The majority of the GPSS pipelines are constructed and operated under the Land Powers (Defence) Act 1958. In particular, Sections 14 and 15 set out the provisions for obtaining wayleaves for Government pipelines; and Section 16 prohibits most works within the wayleaves without the consent of the Secretary of State. The wayleave usually extends to 3 metres on either side of the pipeline.

Some GPSS pipelines were constructed under the Requisitioned Land and War Works Acts 1945 and 1948.

2.2 Section 16 Consents

2.2.1 Circumstances requiring consent

A consent is required for works, other than agricultural operations, within the wayleave. The erection of any buildings or obstructions within the wayleave including the permanent excavation or deposit of any materials, is generally not permitted. The construction of essential crossing points, such as roads or paths, is permissible subject to the conditions set out in this document. More details of the correct procedure to apply for consent may be obtained from the Operator.

2.2.2 Information to be provided

The information required for processing a section 16 application, indicated below, is not a definitive list of requirements, it is a list of Minimum Requirements. On satisfying itself as to the validity of the below information provided by the promoter for the proposed contravention, the Operator will pass the section 16 application on to the Land Agent for the relevant authority to be granted.

Minimum Required Information to be submitted with section16 application

(1) Introduction

A prologue as to the requirement and purpose of the proposed contravention

(2) Site Details

Location/Address, site specific and promoter details plus any contractors employed in connection with the work.

(3) Scope of Work

A detailed summary of the proposed work to be undertaken in respect of the application.

(4) Drawings to be provided

(a) Site Location – This shall be a location plan to a scale of 1:1250 > 1:2500 max. This may vary from location to location dependent on the drawing/mapping facilities available to the promoter

(b) Plan View – Containing all relevant plan information and detail required, including but not limited to, all existing services (electric, gas, mains drainage, etc) effected by the work, proposed excavation detail and location within the wayleave etc. Drawing scale shall be 1:250 maximum.

(c) Cross Sections – Containing all relevant information and detail required including but not limited to, all excavation dimensions, protection details of whatever nature afforded the pipeline (GPSS-PRC-X-0006-01), existing and proposed services in relation to the pipeline. All hard standing construction details will be provided, with proposed depths of construction for each composite layer of material. In addition, all the various types of material to be used will be given as part of the required information.

(5) Risk Assessments & Method statement

These will be in line with the scope of work, i.e. if the scope of work is of a comprehensive nature then the Risk & Method Statements will need to be of a detailed nature. However, if it is a domestic application with little or no risk to the pipeline/facility integrity, then the Operator may use his professional judgement regarding required input.

(6) Emergency Procedures

This shall include but not be limited to, persons on site in control of work, Operator emergency contact details, site evacuation plan and emergency services contact details.

(7) Responsibilities

A list of site specific contacts that will be directly involved in implementing the work and charged with direct responsibility regarding protection/safety controls put in place while the work is ongoing.

(8) Letter/Form of Indemnity

Once the Operator is satisfied that all of the above criteria has been met and the correct type of indemnity has been signed (see GPSS-PRC-X-0004-01-2), returned and attached to the application, he shall pass it on to the Land Agent to progress.

All information that is to form part of the application for section 16 consent shall be site specific, generic information is not acceptable. OPA maintain the right to refuse consent under section 16 of the 1948 and 1958 Act if the content of the above-required items 1 to 8 are not satisfied.

2.2.3 Approval

All section 16 applications for the granting of consents for permanent structures within a GPSS wayleave shall be subject to OPA review and approval. All matters of this nature shall be considered by OPA and its Land Agent.

It is the policy of the OPA not to recommend to the Secretary of State that consent under section 16 of the 1948 and 1958 Act be granted for the erection of permanent structures within a GPSS wayleave other than for access roads or footpaths where these are required to proposed developments or existing housing, or the laying of utility services and drains and the like.

2.2.4 Retrospective consents

Where retrospective section 16 consents are required, for the erection of temporary/permanent structures or roads and pathways all the above drawing information shall be provided to OPA or OPAs Land Agent to consider (this will form part of the as built information to be recorded on the GIS computer). All cases where relaxation is granted will be to the sole discretion of OPA and will be specific to individual cases. In addition, a structural engineers report may be requested so that OPA might satisfy its self as to the ongoing effect on the integrity that any structure may have on a pipeline. In all cases where relaxation is granted the correct form of indemnity must be signed by the promoter, allowing future access to and the removal of any structure from the GPSS wayleave for the purpose of emergency or essential maintenance. Where such an accord exists between OPA, the OPA's Land Agent will assist in recording such an accord on the title deed to the property or land in question. Note, such an accord shall be transferable with sale and without such a record having been entered onto the promoters title deeds no accord shall be reached and any/all structures shall subsequently be removed at the promoters cost.

2.2.5 Agricultural work

Mole ploughing for drainage of farm land that does not involve the ploughing in or insertion of drains does not require a Section 16 consent so long as it falls within the general category of agricultural work referred to in the Act. Landowners and farmers should however note that the exclusion of this requirement in no way exempts them from liability for the consequences of damage to GPSS pipelines. They are therefore strongly recommended to contact the Operator before commencing such work.

3 SUPERVISION OF WORKS

3.1 Supervision

All working within the pipeline wayleave is to be supervised by the Operator with the application of Permit to Work procedures as appropriate.

3.2 Cost of supervision

OPA will carry the cost of such supervision for the first 3 working days (of up to 8 hours per visit, Mon-Fri between 8.00am and 17.00pm inclusive of travel), and thereafter the costs shall be recovered by the Operator from the third party. Current contract rates for supervision charges will be provided by the Operator to the Third Party on request.

3.3 Notice period

A minimum of 3 working days prior notice shall be given by the third party to the Operator before any works are commenced within 3 metres of a GPSS pipeline.

4 HOT WORKING

4.1 Welding and other hot works

Welding or other hot works involving a naked flame must be carried out at a safe distance from the pipeline to be agreed with the Operator.

5 CROSSINGS

5.1 Crossing Design

5.1.1 General requirements (refer to drawings in Appendix 4)

A new service (other than a road or railway) shall be routed so as to:

- (a) pass under the existing pipeline;
- (b) have a minimum of 300mm separation from the pipeline; and
- (c) cross the pipeline at right angles if possible and in any case at an angle of not less than 60 degrees.

5.1.2 Exceptions

In general, if OPA permits the crossing of a GPSS pipeline by a third party service, the new service will be expected to pass under the pipeline. However, the following services will normally be allowed to pass over the pipeline;

- (a) a road or railway (which may involve a lowering of the pipeline or the construction of an embankment);
- (b) small diameter sewers or drains which flow under gravity (provided that adequate separation between the service and the pipeline can be maintained);
- (c) other minor services, at the discretion of OPA or the Operator.

5.1.3 Road and Railway Crossing Design

Detailed designs must be provided to OPA or the Operator at least 2 months before the start of construction is anticipated.

For all new developments where the promoter requires a Section 16 consent, then part of the requirement that the promoter should satisfy is that pipeline markers are erected on both sides of all road crossings that the development will create.

5.1.4 Pipeline Crossings

If the new service is a steel pipeline to be operated at a pressure in excess of 10 bar, pre-tested pipe must be used for the crossing. The pipe shall be hydrostatically pressure tested for at least 24 hours in accordance with BS 8010 Part 2 (latest version).

Should the third party service be designed to be cathodically protected, the design shall be such as to protect the GPSS pipeline from interference. This shall be demonstrated to the satisfaction of OPA and the Operator.

5.1.5 Protection Details

Adequate protection of the GPSS pipelines at the road and vehicle crossing points shall be provided and shall be generally in accordance with the drawings in Appendix 3 and the requirements set out below in 5.1.6 and 5.1.7.

5.1.6 Pipeline Wrapping

- (a) The affected length of pipeline will be exposed and the wrapping removed by an experienced and qualified pipeline engineering contractor approved to work on the GPSS.
- (b) The pipeline will be cleaned around its full outside diameter (OD) using a suitable method and respective items of plant, this will allow good surface contact for all inspection equipment.
- (c) Once the inspection contractor has satisfied himself that the integrity of the pipeline at the location in question is adequate for the purpose for which it is intended, the pipeline will be double wrapped using servivwrap R30 or approved equivalent.
- (d) A report will be generated by the OPA pipeline inspector or pipeline engineering contractor regarding the general condition of the wrapping on adjacent pipework, this may recommend further remedial wrapping work outside that required of the protection activities and will be to OPAs account.
- (e) Pipeline wrapping will be inspected by a qualified person before and during backfilling.

5.1.7 Pipeline Inspection

- (a) Once the section of pipeline has been exposed to the satisfaction of the inspection contractor/OPA pipeline inspector, the pipeline will be scanned 100% OD using low frequency electromagnetic technique system on all exposed areas of pipeline. All relevant areas ID/OD defects will be identified, ultrasonically verified by a suitably qualified technician and mapped according to location, size and type.
- (b) Only when the inspection contractor has satisfied himself that the length of pipeline being inspected is fit for purpose will he sanction the wrapping work described above.
- (c) The inspection contractor will issue a preliminary report before leaving site followed by a fully comprehensive report with individually tabulated results.
- (d) If, any defects are identified, the excavations will remain open at the promoters cost (i.e. the cost of any protection/health & safety requirements) until the proper remedial actions can be defined and employed.

All costs associated with the above activities will be to the account of the promoter of the works.

5.2 Crossing Construction

5.2.1 Supervision

See Section 3 of this document.

5.2.2 Method Statement

Prior to work commencing within 3 metres of a pipeline, and in addition to a scope of works, a written method statement shall be provided by the third party setting out the manner of working which is to be agreed with the Operator.

5.2.3 Location of the Pipeline

The Operator will locate and mark the route of the pipeline prior to work commencing within 3 metres of the pipeline. Notwithstanding this, the third party shall confirm the location of the pipeline by trial holes or other approved means, under the supervision of the Operator, so as to avoid damaging it during his work.

5.2.4 Excavations

All excavation within 3 metres (or such other safe distance that may be agreed with the Operator) of the marked location of the pipeline shall be carried out manually and no mechanical means employed.

5.2.5 Plant Crossing Points

No vehicle, plant or machinery shall cross, stand on, or operate on, the wayleave except at points agreed with the Operator. Where required to distribute loads, wooden sleepers or concrete rafts shall be constructed to prevent detrimental loading of the pipeline. Fencing shall be erected by the third party to regulate the movement of vehicles, plant or machinery. All such temporary works shall be removed at the end of the crossing work.

5.2.6 Backfilling

Backfill material shall be:

- (a) clean soil free from clods, flints, stones, rubbish and carbonaceous materials, or
- (b) freshwater sand laid in 300mm layers and consolidated layer by layer.

Any damage to the corrosion coating of the GPSS pipeline must be reported immediately to the Operator. The third party shall be liable for the full cost of repairing any such damage, which shall be carried out to the satisfaction of the Operator.

5.3 Directional Drilling Thrust Boring or Other Trenchless Techniques

5.3.1 Conditions

These techniques will be considered as an alternative method of crossing the GPSS pipelines subject to the following conditions being fully adhered to.

- (a) Method statement complete with drawings for the completion of pipeline crossings using trenchless methods shall be approved by the operator.
- (b) At the proposed crossing point the operator will locate and mark the approximate location of the relevant section of the GPSS pipeline. The third party shall then accurately locate (depth & plan position) the pipeline by hand excavation.
- (c) Clearance between the GPSS pipeline and the drilling auger (or similar) shall be maximised, the minimum clearance shall be 1.5 metres. An observation pit shall be excavated on the thrusting side of the pipeline and to a depth of the auger (or similar) so that the bore can be monitored passing under the GPSS pipeline (see drawing appendix 5)
- (d) If a displacement method of moling or backreaming is employed the third party shall excavate a trench directly below the pipeline 300mm deep x 1000mm long (see drawing appendix 5) to relieve upward pressure on the pipeline caused by ground heave during the bore expanding process. The minimum clearance depth of 1.5 metres below the pipeline shall be uniform across the pipeline easement before rising to normal pipeline depth, observation pits at the easement boundary shall be excavated to confirm this.
- (e) The third party must propose and demonstrate their method of determining and ensuring that the design clearance will be achieved, this may mean digging away from the GPSS pipeline during preliminary stages of boring to confirm that the actual location of the boring head is as given by the tracking/locating instrumentation.

The above shall not relieve the third party from any other conditions imposed within this document.

5.4 Cathodic Protection

5.4.1 Liability for damage to a third party

The GPSS pipelines are protected by impressed current cathodic protection systems. These may interact with any nearby iron or steel structures. Neither the Secretary of State, OPA, nor their Operators or Agents will accept any liability for any damage to a third party attributable to interaction with the cathodic protection system.

5.4.2 Interaction testing

Test leads should be installed on any new iron or steel service or structure, close to the crossing, to facilitate the measurement of any potential interaction effect. The third party shall carry out interaction tests following completion of construction. The Operator shall be invited to witness all such tests. The results of the tests shall be provided to OPA and the Operator. Should the third party service be designed to be cathodically protected, the design shall be such as to protect the GPSS pipeline from interference. This shall be demonstrated to the satisfaction of OPA and the Operator. The costs of any changes or additions to GPSS cathodic protection installations needs to mitigate interactions will be recovered by the Operator from the third party.

5.5 Reinstatement

On completion of any construction work within the wayleave, the third party shall reinstate the land to its original condition and to the satisfaction of the land owner/occupier, the Land Agent and the Operator.

6 EMERGENCIES

6.1 Supervision

At all times when work is being undertaken within the wayleave, the third party shall ensure that there is present a resident supervisor, or foreman, who:

- (a) is aware of these requirements;
- (b) is aware of the relevant pipeline Operator's emergency contact phone number (see Appendix 1);
- (c) has a means of contacting the emergency services and the Operator in an emergency.

6.2 Action in the event of a suspected or actual leak

In the event of a leak from the GPSS pipeline occurring, or being suspected, the following actions should be taken by the third party:

- (a) Remove all personnel from the immediate vicinity;
- (b) Remove all sources of ignition for at least 200 metres upwind and 500 metres downwind of the area of the leak. This should include stopping engines, prohibiting smoking, extinguishing all naked flames and preventing the switching of electrical apparatus.
- (c) Dial 999 and inform the Police and Fire Brigade.
- (d) Inform the Operator (see Appendix 1 for telephone numbers).
- (e) Prevent the approach of traffic and the general public.
- (f) Assist in safeguarding persons and property as necessary, or as directed by the Police, Fire Brigade or Operator.

Should a leak occur, no attempt should be made by the third party to seal the leak, but bunds or dams should be constructed (with due regard to the precautions set out in (a) and (b) above) from boards and earth to prevent the product from flowing in to ditches, streams, drains, manholes or other such water courses or ducts.

APPENDIX 1

EMERGENCY CONTACT TELEPHONE NUMBERS

GPSS Aldermaston Control Centre

Operator – Serco Gulf Engineering Limited

0118 971 2021

GPSS Rawcliffe Control Centre

Operator – Serco Gulf Engineering Limited

1405 839212

APPENDIX 2

OPERATOR CONTACT ADDRESSES

AMCO ENGINEERING

Whaley Road
Barugh
Barnsley
South Yorkshire
S75 1HT

Tel: 01226 243413
Fax: 01226 320207

BABCOCK INFRASTRUCTURE SERVICES

Clive House (Unit 5D)
Langley Business Centre
Slough
SL3 8DS

Tel: 01753 211214
Fax: 01753 211243

SERCO GULF ENGINEERING LIMITED

Ashdon Road
Saffron Walden
Essex
CB10 2NF

Tel: 01799 564100
Fax: 01799 513717

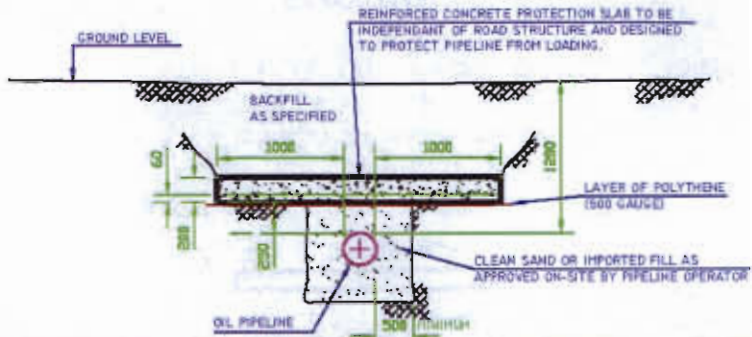
UNIPEN LIMITED

Britannia House
3 Roberts Mews
Orpington
Kent
BR6 0JP

Tel: 01689 890840
Fax: 01689 890798

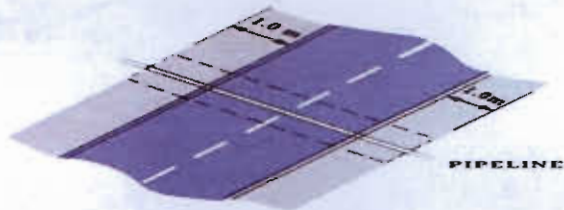
APPENDIX 3.0

A. BELOW NEW ROAD CONSTRUCTION

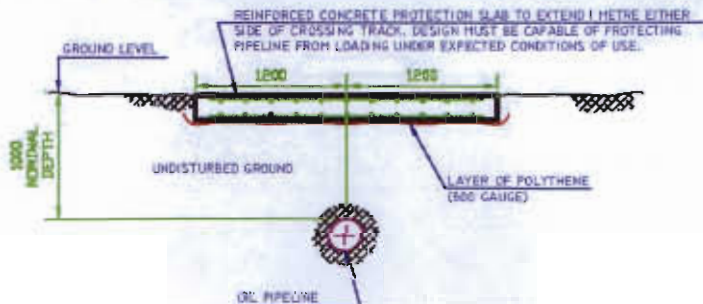


B. PROPOSED CARRIAGEWAY CROSSING

THE CONCRETE SLAB IS TO EXTEND A MINIMUM OF 1.0 METRE BEYOND THE PROPOSED CROSSING AREA, I.E.

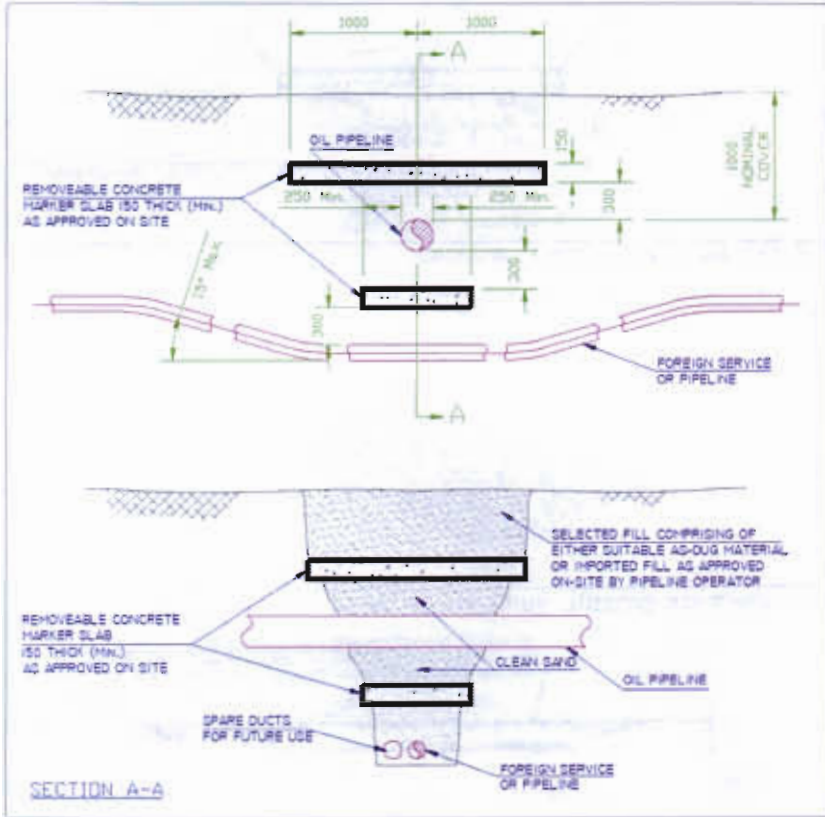


C. TEMPORARY CROSSING POINT (To Be Removed After Use)



APPENDIX 4.0

FOREIGN SERVICE CROSSING/MULTI UTILITY CROSSING



APPENDIX 5.0

Directional Drilling Thrust Boring or Other Trenchless Techniques

(For use only in cases of engineering difficulty)

