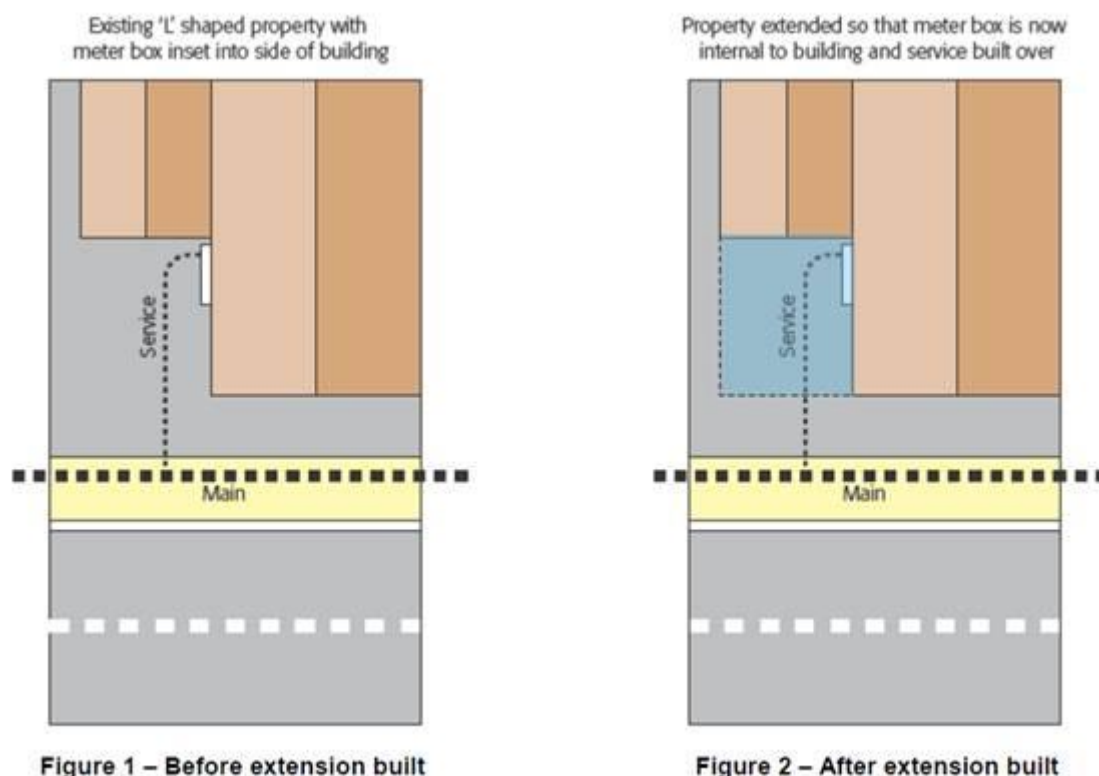


## GG-TGI-IG-0037 BUILDING OVER EXTERNAL GAS PIPES

### Introduction

When domestic housing is constructed, the gas supply pipe laid to the property is compliant with relevant standards. If the property is subsequently enhanced by the construction of an extension, or enclosing an open porch, and the gas meter contained within a meter box is then within the new build enclosure, it will be considered non compliant with legislation and gas industry standards. The following sketch provides an example of extension or porch build out.



The purpose of this Information and Guidance note is therefore to explain the areas where non compliance exist and the necessary actions to satisfy relevant standards.

The standard recessed gas meter box is designed to be external to the property. The gas service pipe connecting the supply main in the street to the meter is polyethylene (PE). When the service was constructed, a preformed sleeve provides a conduit that takes the PE service pipe from the horizontal to the vertical terminating at the meter box. This is a standard construction technique applied by the UK gas industry for meter positions terminating externally. An extension or enclosure results in the PE now being located underneath the building and such a material cannot be used for this purpose. In the event of failure of containment due to fire or other interference, this may result in serious damage, particularly where the gas fuel would be an energy source to further stoke the fire.

### Legislative and Standards Compliance

For your information the applicable legislation and standards are referenced in the attached appendix.

### **Proposed extension of porch build out**

GTC own the gas service pipe in question.

Where the construction of an extension or build out of the porch is being considered, contact with GTC is essential to provide a quotation to alter the gas supply. Alternatively, a competent organisation may undertake this work with prior agreement of GTC. A listing of competent organisations are detailed in the Lloyds Register website <http://www.lloydsregister.co.uk/schemes/girs/>

This work is chargeable at the cost GTC incurs, ie no profit is involved for GTC. Normally the meter will be resited to another external wall location.

### **Extension or porch build out already complete**

Should an extension or porch build out be complete and the service and meter location not altered, GTC shall in the interest of safety for the property and its occupants:

- Arrange for immediate disconnection if the gas supply is Medium Pressure i.e. >75mbar. A quotation for the alteration shall also be offered and if accepted and paid immediately, the alteration will be programmed. (note: a label within the meter box will confirm if supply is Medium Pressure)
- Arrange for disconnection after 30 days if the gas supply is Low Pressure, i.e.<75mbar. A quotation for the alteration shall also be offered and if accepted and paid within the 30 days, the alteration will be programmed.

Should no alteration of the meter position take place after building out of the porch, the service pipe will be disconnected for the safety of the property and occupants.

### **Installation (meter outlet) pipework**

Outlet installation pipework is the responsibility of the property owner and therefore a Gas Safe Registered Engineer is required to extend the outlet copper pipework from the new meter position to the existing copper pipework. The Gas Safe Engineer will then be responsible for restoration of appliances. GTC will only require access inside the property to disconnect the gas meter and relocate to outside should building works be completed.

### **Further Information**

Should further information be required for the alteration of the service and meter position, please email [1house1connection@gtc-uk.co.uk](mailto:1house1connection@gtc-uk.co.uk) or telephone 01359 244066.

## APPENDIX – Applicable legislation and standards

The Pipeline Safety Regulations (PSR) and supporting Approved Code of Practice (ACOP) are published by the Health and Safety Commission under section 16(1) of the Health and Safety at Work Act. Specific aspects of PSR include:

- Regulation 5 Design of a pipeline - states "The operator shall ensure that no fluid is conveyed in a pipeline unless it has been so designed that, so far as reasonably practicable, it can withstand (a) forces arising from its operation; (b) the fluids that may be conveyed in it; and (c) the external forces and the chemical processes to which it may be subjected." The supporting ACOP states that "Each service pipe should be designed to convey natural gas safely from the gas distribution main to the outlet of the emergency control which is immediately upstream of the meter installation pipework, and in such a way that it is least likely to be affected by third party interference or subject to accidental damage". Supporting HSE Guidance Note of the ACOP states "Technical guidance in the form of recommendations from the Institution of Gas Engineers offers standards recognised across the industry, and is published as IGE/TD/4" *(Note - Relevant extracts of IGE/TD/4 are referenced below.)*
- Regulation 8, Materials - states "The operator shall ensure that no fluid is conveyed in a pipeline unless it is composed of materials which are suitable." The supporting HSE ACOP states "The design plan for the service pipe installation should detail those materials and fittings to be used in its construction, including reference to the appropriate technical standards, required to permit its subsequent safe operation." *(Note - The 'operator' is GTC as the gas transporter and the appropriate standard is IGE/TD/4)*
- Regulation 9, Construction and Installation - states "The operator shall ensure that no fluid is conveyed in a pipeline unless it has been so constructed and installed, so far as reasonably practicable, it is sound and fit for the purpose which it has been designed." The supporting HSE ACOP states "The service pipe should be installed as detailed on the design plan. Where any variation in route or modification in design is proposed, it should be in line with the overall standards and specification agreed at the design stage". The reference is IGE/TD/4 which is detailed in the appendix of PSR. *(Note – the service is now being used for circumstances which it was not designed for. If the routing was applicable the PE would be contained wholly in a metallic sleeve.)*

Reference to the term "low as reasonably practicable" can be found on the HSE web link <http://www.hse.gov.uk/risk/theory/alarpglance.htm>

The Institution of Gas Engineers standards referenced in PSR is IGE/TD/4. Specific clauses relevant include:

- P1.6.1.1, A service should be installed only in a position in which it can be used with safety, having regard to the position of other nearby services and to such parts of the structure of any building through which it is laid that might affect its safe use. Note: The adopting GT may stipulate its preferred entry and termination methods.

- P1.6.1.7, Where a service is installed such that it passes through a cavity wall, solid wall, solid floor or space between the floor and the ceiling below:
  - It should be of a non combustible material, *(note – PE and existing sleeve are not)*
  - It should be enclosed in a sleeve and not contain mechanical joints, *(note – the whole service under the building will not be fully sleeved and does contain a mechanical joint , i.e. linking the PVC to the GRP)*
  - The annulus between the pipe and sleeve should be sealed so as to prevent the passage of gas. The seal should be of a fire resistant material. *(note – the annulus between the PE and the PVC/GRP sleeve is not sealed)*
- P1.6.1.9, A service must not be installed under the foundations of a building, under the base of a load bearing wall or under a floating raft foundation. *(note – the unprotected PE is under the foundation and raft)*
- P.1.6.1.13, A PE service should not enter any building, including a garage or enclosed structure, unless enclosed in a gas-tight metallic sleeve. The transition from PE to metallic pipework should take place as soon as practicable after entering into the building. *(note – the PE is not enclosed in a metallic sleeve)*

IGE terms “**must**” identifies “a requirement by law in Great Britain” and “**should**” prescribes “an action which, it is intended, will be complied with”.