

***Adoption of pipe systems by a GT –
management of UIP activities***



*Founded 1863
Royal Charter 1929
Patron: Her Majesty the Queen*



IGEM/TD/101 Edition 3
Communication 1802

Adoption of pipe systems by a GT – management of UIP activities

Price Code: C3S
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ISBN 978 1 905903 78 8
ISSN 0367 7850

Published by the Institution of Gas Engineers and Managers

Previous Publications:

Communication 1674 (2002) – 1st Edition
Communication 1740 (2009) – 2nd Edition

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SECTION 1 : INTRODUCTION

1.1 IGEM/TD/101 Edition 3 supersedes IGE/TD/101 Edition 2, Communication 1740, which is obsolete.

1.2 This Standard has been drafted by an Institution of Gas Engineers and Managers (IGEM) Panel, appointed by IGEM's Gas Transmission and Distribution Committee, and has been approved by IGEM's Technical Co-ordinating Committee on behalf of the Council of IGEM.

1.3 This Standard sets down the minimum management requirements for the laying of newly constructed Natural Gas mains and services (pipelines) including associated installations, for example a pressure regulating installation (PRI), having a maximum operating pressure (MOP) of 7 bar, for adoption by a gas transporter (GT). Their use is intended primarily for Great Britain (GB), although the principles may be applied in other countries.

Note: The laying of such pipelines is, generally, carried out by a utility infrastructure provider (UIP).

1.4 IGE/TD/101 Edition 2 was drafted by an industry working group comprising the Association of Independent Public Gas Transporters (now the Association of Independent Gas Transporters (AIGT), Transco (now National Grid plc) and the Institution of Gas Engineers (now IGEM). This Edition 3 reflects changes in practices and terminology, and has been prepared by IGEM's Panel comprising representatives of Gas Distribution Networks (GDN's), AIGT, independent gas transporters, Society of British Gas Industries (SBGI for UIPs) and consultants with input from the Gas Industry Registration Advisory Panel (GIRSAP).

1.5 This Standard is intended to supplement, but not amend, abridge or override, any legislation or technical standards referenced herein.

Note: This means, for example, the Pipelines Safety Regulations (PSR) take precedence over this Standard in the unlikely event of contradiction or difference.

1.6 This Standard makes use of the terms "should", "shall" and "must" when prescribing particular requirements. Notwithstanding clause 1.9:

- the term "should" prescribes a requirement which, it is intended, will be complied with unless, after prior consideration, deviation is considered to be acceptable
- the term "shall" prescribes a requirement which, it is intended, will be complied with in full and without deviation
- the term "must" identifies a requirement by law in GB at the time of publication.

Such terms may have different meanings when used in legislation, or Health and Safety Executive (HSE) Approved Codes of Practice (ACoPs) or guidance, and reference needs to be made to such statutory legislation or official guidance for information on legal obligations.

- 1.7 The primary responsibility for compliance with legal duties rests with the employer. The fact that certain employees, for example “responsible engineers”, are allowed to exercise their professional judgement does not allow employers to abrogate their primary responsibilities. Employers must:
- have done everything to ensure, so far as is reasonably practicable, that there are no better protective measures that can be taken other than relying on the exercise of professional judgement by “responsible engineers”
 - have done everything to ensure, so far as is reasonably practicable, that “responsible engineers” have the skills, training, experience and personal qualities necessary for the proper exercise of professional judgement
 - have systems and procedures in place to ensure that the exercise of professional judgment by “responsible engineers” is subject to appropriate monitoring and review
 - not require “responsible engineers” to undertake tasks which would necessitate the exercise of professional judgement that is beyond their competence. There should be written procedures defining the extent to which “responsible engineers” can exercise their judgment. When “responsible engineers” are asked to undertake tasks that deviate from this, they should refer the matter for higher review.
- 1.8 It is now widely accepted that the majority of accidents in industry generally are in some measure attributable to human as well as technical factors in the sense that actions by people initiated or contributed to the accidents, or people might have acted better to avert them.
- It is therefore necessary to give proper consideration to the management of these human factors and the control of risk. To assist in this, it is recommended that due cognisance be taken of HSG48 and IGEM/G/7 Risk Assessment Techniques.
- 1.9 Notwithstanding clause 1.6, this Standard does not attempt to make the use of any method or specification obligatory against the judgement of the responsible engineer. Where new and better techniques are developed and proved, they should be adopted without waiting for modification to this Standard. Amendments to this Standard will be issued when necessary, and their publication will be announced in the Journal of IGEM and other publications as appropriate.
- 1.10 Requests for interpretation of this Standard in relation to matters within its scope, but not precisely covered by the current text, should be addressed to Technical Services, IGEM, 26-28 High Street, Kegworth, Derbyshire, DE74 2DA, email: technical@igem.org.uk and will be submitted to the relevant Committee for consideration and advice, but in the context that the final responsibility is that of the engineer concerned. If any advice is given by or on behalf of IGEM, this does not relieve the responsible engineer of any of his or her obligations.
- 1.11 This Standard was published in August 2018.

SECTION 2 : SCOPE

2.1 This Standard applies to pipelines (including associated installations) intended to convey Natural Gas, a 2nd family gas as defined by BS EN 437 Test gases. Test pressures. Appliance categories.

For the purposes of this Standard, the term "pipeline" means a main or a service. Where necessary, the terms "main" and "service" are used.

2.2 This Standard applies to new pipelines, associated installations and to disconnections and service alteration involving existing services.

Note: There is no intent that the Standard be applied retrospectively.

Historically the scope of this standard applied to exit connections from existing gas networks. However, the principles of this standard may also be applied to pipelines laid for entry connections.

2.3 This Standard applies to pipelines (and associated installations) of MOP not exceeding 7 bar.

2.4 This Standard is intended to ensure that constructed pipelines and associated installations are suitable for adoption by a GT. It addresses the following:

- adoption criteria and process
- overall design (which also involves sufficient information being available to enable subsequent assurance of integrity and safety of all the impacted GT's systems)
- detailed design review for networks (ensuring the submission is compatible with the GT's existing network)
- construction (in accordance with relevant technical standards)
- connections to live gas networks
- variation procedures
- alterations and disconnections
- fitness for purpose of materials and equipment
- PSSR.

Note: "Adoption" in this Standard means "vest in" as termed in the Gas Act 1986 (as amended) Part 1 Section 10.

2.5 All references to gas pressure are gauge pressure, unless otherwise stated.

2.6 Details of all legislation, standards and other publications referenced within this standard are provided in Appendix 2.

Where Standards are quoted, equivalent national and international standards, etc. equally may be appropriate.

2.7 Italicised text is informative and does not represent formal requirements.

2.8 Appendices are informative and do not represent formal requirements unless specifically referenced in the main sections via the prescriptive terms "should", "shall" or "must".