



***IGEM/G/0***  
***Communication 1782***

## ***A Standard for IGEM Standards***



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



## ***A Standard for IGEM Standards***



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**SECTION 1 : INTRODUCTION**

1.1 This Standard has been agreed between the IGEM Technical Co-ordinating, Gas Transmission and Distribution, Gas Utilization and Gas Measurement Committees who are responsible for the publication of IGEM Standards.

1.2 This Standard has been created to ensure a consistent approach is taken in producing IGEM Standards. It therefore provides a framework for the content, style, layout and publication which need to be taken into consideration when writing or revising IGEM Standards.

The intention is to ensure the requirements of any IGEM Standard are effectively communicated and interpreted.

1.3 This Standard attempts to consolidate hitherto different styles, formats and language used to offer a framework which can be applied for new Standards and for existing Standards, as and when they are reviewed.

1.4 IGEM/G/0 is for those involved in the drafting and interpreting of IGEM Standards that is IGEM Secretariat, Committee members and readers of IGEM Standards.

1.5 "This Standard makes use of the terms "must," "shall" and "should" when prescribing particular requirements.

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

1.6 This Standard can be freely downloaded from IGEM's website [www.igem.org.uk](http://www.igem.org.uk).

1.7 Requests for interpretation of this Standard in relation to matters within their scope, but not precisely covered by the current text, should be either:

- addressed to Technical Services, IGEM, IGEM House, High Street, Kegworth, Derbyshire, DE74 2DA; or
- emailed to [technical@igem.org.uk](mailto:technical@igem.org.uk).

These will be submitted to the relevant Committee for consideration and advice.

1.8 This Standard was published in November 2015.

## SECTION 2 : SCOPE

2.1 This Standard covers the requirements for all new IGEM Standards. It will also be applicable to existing IGEM Standards when they are reviewed.

*Note 1: It is not the intention for the publication of IGEM/G/0 to initiate reviews of existing IGEM Standards.*

*Note 2: IGEM/G/0 is for those involved in drafting and interpreting of IGEM Standards that is IGEM Secretariat, Committee members and readers of IGEM Standards.*

*Note 3: IGEM publishes Standards, Specifications and Guidance documents. The requirements of this Standard equally apply to these documents, unless expressly provided.*

2.2 This Standard defines the sections that need to be included in new or revised Standards.

2.3 This Standard prescribes the style and format requirements.

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

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

## SECTION 3 : PRINCIPLES

### 3.1 STATUS OF IGEN STANDARDS

Requirements within IGEN Standards assist competent engineers in complying with legal requirements and provide instruction and guidance on the requirements to ensure efficient, safe and environmentally sound gas Assets.

### 3.2 GENERAL

A Standard or Guidance document shall:

- be complete within the limits of its scope
- be consistent, accurate and unambiguous
- take account of the current legal requirements
- take account of the current state of technical development
- provide a framework in which innovation can be accommodated and supported
- be readily comprehensible to those who might intend to use it
- take account of environmental impacts.

3.3 A Standard shall include clauses that from Section 3 onwards contain "must" "shall" or "should" otherwise the text has to constitute a note.

*Note: Requirements in a clause cannot be qualified by words such as preferably or normally.*

3.4 Appendices shall not contain 'must', 'shall' or 'should'.

3.5 A guidance document shall include clauses that from Section 3 onwards contain "must" to indicate a legal requirement. "Shall" or "should" shall not be used.

### 3.6 COMPETENT PERSONS

For IGEN Engineering/Technical Standards on gas equipment and activities (design; construction; installation; commissioning; operation; maintenance; etc.), the Standard shall be written in a style that assumes the reader is competent in the gas related subject.

For IGEN Standards that are written for persons who are not required to be competent persons in a gas discipline, the Standard shall be written in a style that does not assume such competence. Otherwise, it shall assume that the reader is competent to carry out any requirements and understand the guidance and information provided.

*Note: The majority of IGEN Standards are Engineering/Technical Standards requiring competence in a specific gas discipline, for example IGEN/TD/1; IGEN/UP/2; IGEN/GM/8 etc. A minority of IGEN Standards do not demand such competence, for example IGEN/G/0; IGEN/UP/1101; IGEN/UP/19 etc. Such guidance documents are aimed at persons such as those responsible for: installed gas equipment (duty holders); specifying and purchasing gas or other equipment; interpreting relevant Legislation, etc. and are not necessarily competent in a gas discipline.*

## SECTION 4 : INITIATING A REVIEW/NEW STANDARD

### 4.1 GENERAL

Any IGEN Standard has a Parent Committee(s) responsible for its conception and review (see IGEN's TCC Governance Manual CD12). Any proposed new Standard/review shall be approved by the Parent Sub-Committee in accordance with procedures in the TCC Governance Manual.

#### 4.1.1

The title of any Standard shall be assigned a series title. A number shall be assigned by IGEN Secretariat, for example, IGEN/TD/3 Edition 6.

*Note: The review of an existing IGEN Standard will need to consider whether the Standard title and scope is still appropriate.*

At the time of publication of IGEN/G/0, IGEN currently publishes Standards in the following Series:

- Gas Measurement (GM)
- General (G)
- Legislation (GL)
- Industry Guidance (IG)
- Safety (SR)
- Transmission and Distribution (TD)
- Utilization (UP).

### 4.2 GENERAL SERIES

A Standard in this series prescribes requirements for multiple sectors of the gas supply and use industry:

- installation pipework
- meter installation
- network pipelines (Natural gas), service pipework (LPG), pipelines conveying other gases which are to be injected in to the Network (Biogas).

### 4.3 GAS MEASUREMENT SERIES

A Standard in this series prescribes requirements for the design, installation, commissioning, operation and maintenance of meter installations (or part thereof) as defined in IGEN/G/1.

### 4.4 LEGISLATION SERIES

A Standard in this series prescribes requirements to assist in compliance with specific items of Legislation.

*Note: The item of Legislation could be relevant to any part of the gas industry.*

### 4.5 SAFETY SERIES

A Standard in this series prescribes requirements for those safety considerations that need to be taken into account across gas industry Assets.

### 4.6 TRANSMISSION AND DISTRIBUTION SERIES

A Standard in this series prescribes requirements for the design, installation, commissioning, operation and maintenance for the Network pipelines (Natural gas), service pipework (LPG), pipelines conveying other gases which are to be injected in to the Network (for example Biogas/LPG/air).

4.7 **UTILIZATION SERIES**

A Standard in this series prescribes requirements for the design, installation, commissioning operation and maintenance for gas installation downstream of the meter installation defined in IGEM/G/1.

4.8 **INDUSTRY GUIDANCE**

Guidance in this series provides the gas industry with information to support the industry which may or may not relate to a published Standard in one of the other series.

## SECTION 5 : PLANNING

### 5.1 PANEL MEMBERSHIP

5.1.1 A Chair and other Panel Member(s) shall be selected in accordance with the TCC Governance Manual.

5.1.2 Members shall agree a draft programme for publication, in accordance with the TCC Governance Manual.

5.1.3 The scope of the Standard shall be determined or reviewed.

*Note: This may determine that the extent of the work only requires an amendment or a full review of the document.*

### 5.2 DRAFTING OF STANDARDS

5.2.1 For an IGEM Standard to fulfil its purpose, it shall be drafted in such a way so as to promote best practice and a consistent approach by all users.

Therefore, it is important for a Standard to be:

- suitable for its intended aims and purposes
- appropriate in content and language for its intended audience
- clear and unambiguous
- sufficiently accurate and precise for its intended purpose
- capable of supporting legitimate claims of compliance and conformity and contain verifiable provisions
- comprehensive within its intended scope and field of application (with details necessary for its effective application by an appropriately qualified and competent user)
- consistent with the law in all jurisdictions where it is envisaged to be applied.

## SECTION 6 : STRUCTURE

- 6.1 All standards shall contain a:
- front cover page - colour coded depending on which series (see Appendix 8)
  - title page
  - publishing and copyright information page
  - content page(s).
- Note: The inside front cover, inside back cover and back cover are blank.*
- 6.2 Standards shall be divided into Sections, with group related and sequential clauses together.
- 6.3 All Standards shall contain sections entitled:
- Introduction
  - Scope
  - Legal and allied considerations
  - others as required by the scope
  - Appendices as required including, as a minimum References
  - Glossary, acronyms, abbreviations and symbols.
- 6.4 Each Section shall start on a new page.
- 6.5 As appropriate, a Section shall be sub-divided into Sub-Sections, paragraphs, clauses, notes, bulleted lists, etc. defined as follows:
- Section – collation of sub-sections or collation of clauses and notes
  - Sub-Section – collation of clauses and notes
  - Clause – contains a requirement to be followed and signified by a “must”, “shall” or “should”
  - Note – additional information and is not a requirement.
- 6.6 As appropriate, cross-references shall be added. References to Tables and Figures should be added in alongside the item being referred to.
- 6.7 Appendix 1 shall contain a glossary, list of all acronyms, abbreviations, symbols and units used in the Standard.
- Note: Glossary for the standard definitions for the gas industry can be found in IGEN/G/4, free to download from [www.igem.org.uk](http://www.igem.org.uk).*
- 6.8 Appendix 2 shall contain a list of all the references in the Standard. Other references can be included if relevant.
- 6.9 Headers and footers shall commence from the Contents page. The header shall contain the document number (e.g. IGEN/UP/10 Edition 4) indented right and the footer shall contain the page number from Section 1 onwards, IGEN copyright and address centred.

**SECTION 7 : CONTENT****7.1 GENERAL**

7.1.1 A checklist for compiling a Standard can be found in Appendix 7.

7.1.2 Consistency in terminology shall be used.

**7.2 FRONT COVER PAGE**

7.2.1 The front cover page shall contain:

- title identifying it as an IGEN publication and the appropriate series
- communication number
- full title
- IGEN logo
- IGEN crest
- IGEN Standards' seal.

*Note: An example is provided in Appendix 3.*

**7.3 TITLE PAGE**

7.3.1 The title page shall contain:

- title identifying it as an IGEN publication and the appropriate series
- communication number
- full title
- IGEN logo
- IGEN crest
- IGEN Standards' seal
- price code
- IGEN's address.

*Note: An example is provided in Appendix 4.*

**7.4 PUBLISHING AND COPYRIGHT INFORMATION**

7.4.1 The publishing and copyright information shall contain:

- ISBN number
- ISSN number
- copyright year
- registered charity number
- published by the Institution of Gas Engineers and Managers
- copyright statement
- list of previous publications – where relevant
- website address.

*Note: An example is provided in Appendix 5.*

**7.5 CONTENTS**

7.5.1 The contents shall contain the title of each Section, Sub-Section and division of each Sub-Section.

7.5.2 If there are Figures and/or Tables included in the Standard, they shall also be listed.

7.5.3 All Appendices titles shall be included.

*Note: Any divisions of Appendices need not be included.*

## 7.6 INTRODUCTION

7.6.1 The introduction shall contain the following information on:

- any obsolete, superseded or withdrawn Standard(s)
- the Parent Committee responsible for the approval of the Standard
- the aim and purpose of the Standard, potentially drafted by the chair
- any significant changes made since the last Edition (if appropriate).

7.6.2 IGEN Standards make use of the terms "must", "shall" and "should". To define these terms, the following paragraph shall be inserted:

*"This Standard makes use of the terms "must," "shall" and "should" when prescribing particular requirements. Notwithstanding Sub-Section 1.X:*

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

*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."*

*Note: This clause has to be linked to the clause given in 7.6.5, for the Sub-Section reference.*

7.6.3 The industry recognises that human factors may be one aspect in the occurrence of accidents. In recognition of this the following paragraph shall be inserted:

*"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. People who initiated actions that caused or contributed to accidents might have acted in a more appropriate manner to prevent them.*

*To assist in the control of risk and proper management of these human factors, due regard should be taken of HSG48 and HSG65."*

7.6.4 There are a number of legal duties which employers have to comply with. To help identify these responsibilities the following paragraph shall be inserted:

*"The primary responsibility for compliance with legal duties relating to health and safety at work 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 judgement 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 not within their competence. There should be written procedures defining the extent to which "responsible engineers" can exercise their professional judgement. When "responsible engineers" are asked to undertake tasks which deviate from this they should refer the matter for higher review."*

7.6.5 Amendments are sometimes required to IGEN Standards after the Publication, for example where there are advances in technology. To inform users of IGEN Standards of this process the following paragraph shall be inserted:

*"Notwithstanding Sub-Section 1.X, 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 the modification of this Standard. Amendments to this Standard will be issued when necessary and their publication will be announced in the Journal of IGEN and other publications as appropriate."*

*Note: This clause has to be linked to the clause given in 7.6.3, for the Sub-Section reference.*

7.6.6 IGEN provides a technical enquiry service to respond to any queries over the intent and interpretation of clauses within IGEN Standards. To inform users of IGEN Standards of this process the following paragraph shall be inserted:

*"Requests for interpretation of this Standard in relation to matters within their scope, but not precisely covered by the current text, should be either:*

- *addressed to Technical Services, IGEN, IGEN House, High Street, Kegworth, Derbyshire, DE74 2DA; or*
- *emailed to [technical@igem.org.uk](mailto:technical@igem.org.uk).*

*These 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 IGEN, this does not imply acceptance of liability for the consequences and does not relieve the responsible engineer of any of his or her obligations."*

7.6.7 The month and year of publication shall be included.

## 7.7 **SCOPE**

7.7.1 The Scope shall define the areas which are covered by the Standard. The scope should be a definitive statement of the type of Standard, the subject being covered and its application. It should be short and succinct and worded to suit its users. Wherever possible, plain English should be used.

*Note: Where possible, it is preferable not to define exclusions.*

7.7.2 Where IGEN Standards quote gauge pressures, the following shall be included in the Scope:

*"Pressures quoted are gauge pressures unless otherwise stated."*

- 7.7.3 Italicised text and Appendices are informative. The following shall be included in the Scope as two separate clauses:

*"Italicised text is informative and does not represent formal requirements."*

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

- 7.7.4 Where reference is made to heat input (appliance Standards) the following shall be included in the Scope:

*"All heat inputs are net heat inputs unless otherwise stated."*

## 7.8 **LEGISLATION AND STANDARDS**

- 7.8.1 The Legislation and Standards section describes any relevant Legislation and Standards applicable to the document. The following shall be included:

*"This Standard is set out against a background of Legislation in force in GB at the time of publication (see Appendix 2). The devolution of power to the Scottish, Welsh and Northern Ireland Assemblies means that there may be variations to the Legislation described below for each of them and consideration of their particular requirements must be made. Similar considerations are likely to apply in other countries and reference to appropriate national Legislation will be necessary.*

*All relevant Legislation must be complied with and relevant Approved Codes of Practice (ACoPs), official Guidance Notes and referenced codes, standards, etc. shall be taken into account.*

*Care shall be taken to ensure that the latest editions of the relevant documents are used.*

*Appendix 2 lists Legislation, Guidance Notes, standards etc. which are identified within this Standard as well as further items of Legislation that may be applicable. Where Standards are quoted, equivalent national or international standards etc. equally may be appropriate. Unless otherwise stated, the latest version of the referenced document should be used."*

- 7.8.2 The relevant legal requirements shall be outlined.

- 7.8.3 Primary Legislation shall be listed first in alphabetical order followed by secondary Legislation, also in alphabetical order.

*Note: Acts are primary Legislation and Regulations are secondary Legislation.*

## 7.9 **COPYRIGHT**

7.9.1 Copyright in material created by Committee, Panel members or others for the purpose of the Standard are exclusively and irrevocably assigned to the Institution and that all intellectual property in such material shall for the purposes of the Standard be fully vested in IGEM as detailed in the TCC Governance Manual.

7.9.2 Contributors accept that exploitation, whether in full or in part, shall take place without reference to them or mention of their name.

Contributors are allowed to continue to use unique contributions provided that:

- they existed prior to commencement or arose during the collaborative process of developing the Standard; and
- the use of copyrightable material does not adversely affect the promulgation or exploitation of the Standards by IGEM.

7.9.3 Other than as stated above, reproduction in any form of materials published by IGEM must be subject to approval in advance by the Institution. Where such permission is granted an appropriate reference and acknowledgement to the Standard as the source shall be made.

## 7.10 **OTHER SECTIONS**

7.10.1 Other sections shall be added as identified by the Panel. This may include, but is not restricted to, information on subjects such as:

- preparation and planning
- health, safety and environmental issues
- risk assessment
- site operations
- records and reporting
- gas supplies
- ancillary information and equipment
- training and accreditation.

7.10.2 Where Tables and Figures represent formal requirements, these shall be specifically referenced in the main sections via the prescriptive terms "must", "shall" or "should".

## 7.11 **APPENDICES**

### 7.11.1 **General**

7.11.1.1 These can contain any additional information to support the main body of the Standard such as Tables, Diagrams, Forms etc. and shall be referred to in the appropriate place in the main Sections.

### 7.11.2 **Appendix 1**

7.11.2.1 This shall contain definitions of terms that are not defined in IGEM/G/4 or IGEM/G/1, acronyms and abbreviations, units, symbols and subscripts as appropriate and listed in alphabetical order. It shall contain the words:

*"All definitions, other than those given below are given in IGEM/G/4 which is freely available by downloading a printable version from IGEM's website, [www.igem.org.uk](http://www.igem.org.uk).*

*Recommended and legacy gas metering arrangements are given in IGEM/G/1 which is freely available by downloading a printable version from IGEM's website, [www.igem.org.uk](http://www.igem.org.uk)."*

7.11.2.2 Within the glossary each new list shall end with a full stop.

7.11.3 **Appendix 2**

7.11.3.1 This Appendix shall be broken down into bulleted lists (in alphabetical order) of:

- Primary Legislation
- Secondary Legislation
- European Legislation
- HSE ACoPs and Guidance
- IGEM
- British Standards Institution (abbreviated titles)
- UKLPG
- Miscellaneous (abbreviated titles).

## SECTION 8 : STYLE AND LAYOUT

### 8.1 GENERAL

- 8.1.1 These conventions shall be followed to try and standardise the appearance of the Standard.
- 8.1.2 A4/A5 page layout shall be used as appropriate.
- 8.1.3 The typeface shall be Verdana and Justified throughout unless otherwise stated below.
- 8.1.4 The typographical style throughout the document (i.e. except for the front cover, inside front cover, copyright page and back cover) shall be as detailed in Table 1.

ELEMENT	TEXT	POSITION	OTHER
Top margin		1.5 cm from top	
Bottom, left and right margin		2 cm from bottom, left and right	
Headers	8pt	0.7 cm	Standard title on every page
Footers	8pt	0.5 cm	On every page the text included as follows: "©IGEM, IGEM House, High Street, Kegworth, Derbyshire, DE74 2DA. Website: <a href="http://www.igem.org.uk">www.igem.org.uk</a> "
Page numbers	10pt	Centred in footer above address	
Section headings (Level 1)	12pt, Bold, Capitals	If 2 lines or more align appropriately	Ranged left, no full point at end e.g. <b>SECTION 1 : INTRODUCTION</b>
Sub-section heading (Level 2)	10pt, Bold, Capitals	2.5 cm hanging indent	No full point at end
Sub-section/clause numbering	10pt	0 cm indent	
Clause heading (Level 3)	10pt, Bold upper/lower case	2.5 cm hanging indent	No full point at end
Sub-clause heading (Level 4)	10pt, Italics upper/lower case	2.5 cm hanging indent	No full point at end
Clause	10pt	2.5 cm hanging indent	Paragraphs under the same clause spaced at 10pt
Note	8pt, Italics	2.5 cm indent with 1.5 cm hanging indent	8pt spacing before 10pt spacing after 8pt spacing between Notes
Table title	10pt, Bold,	2.5 cm indent If 2 lines or more align appropriately	Ranged left, no full point at end e.g. <b>TABLE 1 – RELATIVE PRESSURE</b>
Table column heading	10pt, Bold, Capitals	Aligned as required to suit content	Usually centred
Table text	10pt usually*	Aligned as required to suit content	*Size may need to change to suit content <i>Note: See Sub-Section 8.6 regarding: shading in Tables</i>
Figure title	10pt, Bold, Capitals	2.5 cm indent If 2 lines or more align appropriately	Ranged left, no full point at end e.g. <b>FIGURE 1 – TYPICAL LAYOUT</b>

**TABLE 1 - TYPOGRAPHICAL STYLE**

## 8.2 **HYPHENATION**

Non-breaking hyphens shall be used.

## 8.3 **DASHES**

A large “m” – dash (largest) is to be used to separate a Figure or Table number from the title. NB: This can be set using Autoformat in Word.

An “n” dash (medium) is to be used – when replacing the word “to” i.e. 2-3.

## 8.4 **NON-BREAKING SPACES**

A non-breaking space shall be used for names, telephone numbers, units of measurement and their values and Standard references.

## 8.5 **QUOTES**

Double quotes shall be used throughout the Standard.

## 8.6 **TABLES**

Tables shall be used when it is the most efficient way of presenting information. They shall be referred to in the text – at least once in the most appropriate position.

When introducing colour, the IGEM palette shall be used. If grey shading is incorporated it should be at 15%.

Blank cells in the table should be filled in with 15% grey shading or colour from the IGEM palette.

Where Landscape orientation is required, headers and footers shall still be in portrait orientation.

If a table runs on to two pages or more, the column headings shall be repeated.

### 8.6.1 **Table Notes**

Where a note is required to a specific reference in a table, a superscripted number or asterisk should be used. These should be indented at 2.5 cm and typed in 8pt Verdana italics.

## 8.7 **FIGURES**

8.7.1 Figures should be drawn/manipulated in a high quality graphic design package.

8.7.2 Figures should be placed into the document using the appropriate quality and extension.

## 8.8 **LISTS**

### 8.8.1 **Clauses**

8.8.1.1 Bullets shall be used for lists. A maximum of three levels should be used and sized accordingly:

- 1<sup>st</sup> level of bullets to be 14pt, 2.5 cm indent with hanging indent of 0.7 cm
  - 2<sup>nd</sup> level of bullets to be 12pt, indented accordingly
    - 3<sup>rd</sup> level of bullets to be 10pt, indented accordingly.

*Note: No extra line space is required after a colon or in between bullets.*

8.8.1.2 Letters shall be used for procedures or defined orders. Only one level should be used:

(a) Sized at 10pt, 2.5 cm indent with hanging indent.

8.8.1.3 A full point shall be used at the end of the last bullet of a list.

8.8.1.4 Where a list of bullet subjects with explanatory text is required, the Subject title should be in 10pt, bold upper and lower case with the explanatory text proceeding on a new line indented accordingly.

## 8.8.2 **Notes**

8.8.2.1 Notes shall be used for short pieces of relevant additional information to assist in the understanding of the Standard and immediately follow the clause or table etc. to which it refers.

8.8.2.2 Bullets shall be used for lists and sized as 8pt, 2.5 cm indent with hanging indent.

8.8.2.3 Where there are multiple Notes, these should be numbered Note 1, Note 2 etc.

8.8.2.4 Prioritised lists within a Note shall be identified using a sequence of letters and sized as 8pt, indented accordingly.

## 8.9 **EQUATIONS**

8.9.1 Any formulas should be inserted using an equation editor.

8.9.2 If more than one equation is used in a Sub-Section, the equations should be numbered independently (from Tables and Figures). The numbering should run consecutively through the Standard and be presented in brackets, aligned to the right.

8.9.3 Equations should be formatted in such a way as to be easily understood and used in the format prescribed below using an appropriate editor.

$$Q = \frac{7.574 T_s}{P_s \times 10^4} \cdot \sqrt{\frac{(P_1^2 - P_2^2) d^5}{T Z f L S}} \quad (1)$$

## 8.10 **ACRONYMS, ABBREVIATIONS, SYMBOLS AND UNITS**

Where a term to be represented by an acronym or abbreviation is used for the first time in the document, the term shall be given in full followed by the acronym or abbreviation in parentheses. Thereafter only the acronym or abbreviation shall be used. When acronyms or abbreviations are required for company names, the convention used by the company shall be adopted.

A symbol is a mark or character used as a representation for a function or a process. Symbols are listed in a two column table format in the Appendix. These terms shall be singular.

Units are used as a form of measurement. The units used in a Standard are listed in the Appendix.

## 8.11 **EXAMPLES**

Example calculations should be included within the Appendices.

**8.12 FULL POINTS**

Full points should not be used in:

- unit symbols, e.g. mm, kg
- acronyms, e.g. GDN
- abbreviated forms of names of organisations, e.g. BSI
- conventional abbreviated terms e.g. PE.

Full points should be used in:

- abbreviated terms using lower case letters, e.g., etc., a.c., r.m.s. min. and max.

**8.13 CAPITAL LETTERS**

Initial capital letters should be used for:

- Proper nouns
- The first word of a heading or a title
- The words Section, Sub-Section, Standard, Figure, Table, Note, Appendix, Regulation, Legislation (but not clause) when referred to in the text by a cross-reference
- Names of organisations, e.g. HSE
- Natural Gas (NG), CNG and LPG.

**8.14 NUMBERS**

Numbers 1 to 10 should be spelled out except when used in units, equations and lists.

**8.15 SYMBOLS**

Symbols such as % should have a non-breaking space in front of it.

e.g. 99 %  
20 °C

**8.16 PHOTOGRAPHS**

Photographs should be used only when a line drawing is not suitable or available. If photographs are used then copyright permission must be obtained and a credit added underneath.

Photographs will need a higher degree of resolution for reproduction at the printing stage and will also create larger files which may also be a consideration.

## APPENDIX 1 : GLOSSARY, ACRONYMS, ABBREVIATIONS, SYMBOLS AND UNITS

### A1.1 GLOSSARY

All definitions except those detailed below are given in IGEN/G/4 which is freely available by downloading a printable version from IGEN’s website [www.igem.org.uk](http://www.igem.org.uk).

Standard and legacy gas metering terms are given in IGEN/G/1 which is freely available by downloading a printable version from IGEN’s website.

Definitions of terms relevant to this Standard and not to be found in IGEN/G/4 are:

Example term	The definition to the example term which, although may be commonly recognised, may mean something different in the context of the body of the Standard. However, a definition in IGEN/G/4 shall not be amended except by the addition of a Note.
--------------	--

### A1.2 ACRONYMS AND ABBREVIATIONS

ACoP	Approved Code of Practice
BSI	British Standards Institution
CNG	Compressed Natural Gas
GB	Great Britain
HSE	Health and Safety Executive
IGEM	Institute of Gas Engineers and Managers
ISBN	International Standard Book Number
ISSN	International Standard Serial Number
LPG	Liquefied Petroleum Gas
NG	Natural Gas
TCC	Technical Coordinating Committee.

### A1.3 SYMBOLS

These are listed in a two column table format. These terms shall be singular.

### A1.4 UNITS

kg	kilogram
mm	millimetre.

## APPENDIX 2 : REFERENCES

This Standard is set out against a background of Legislation in force in GB at the time of publication. Similar considerations are likely to apply in other countries where reference to appropriate national Legislation is necessary. The following list is not exhaustive.

Where British Standards etc. are quoted, equivalent national or international Standards etc. equally may be appropriate.

### A2.1 **IGEM STANDARDS**

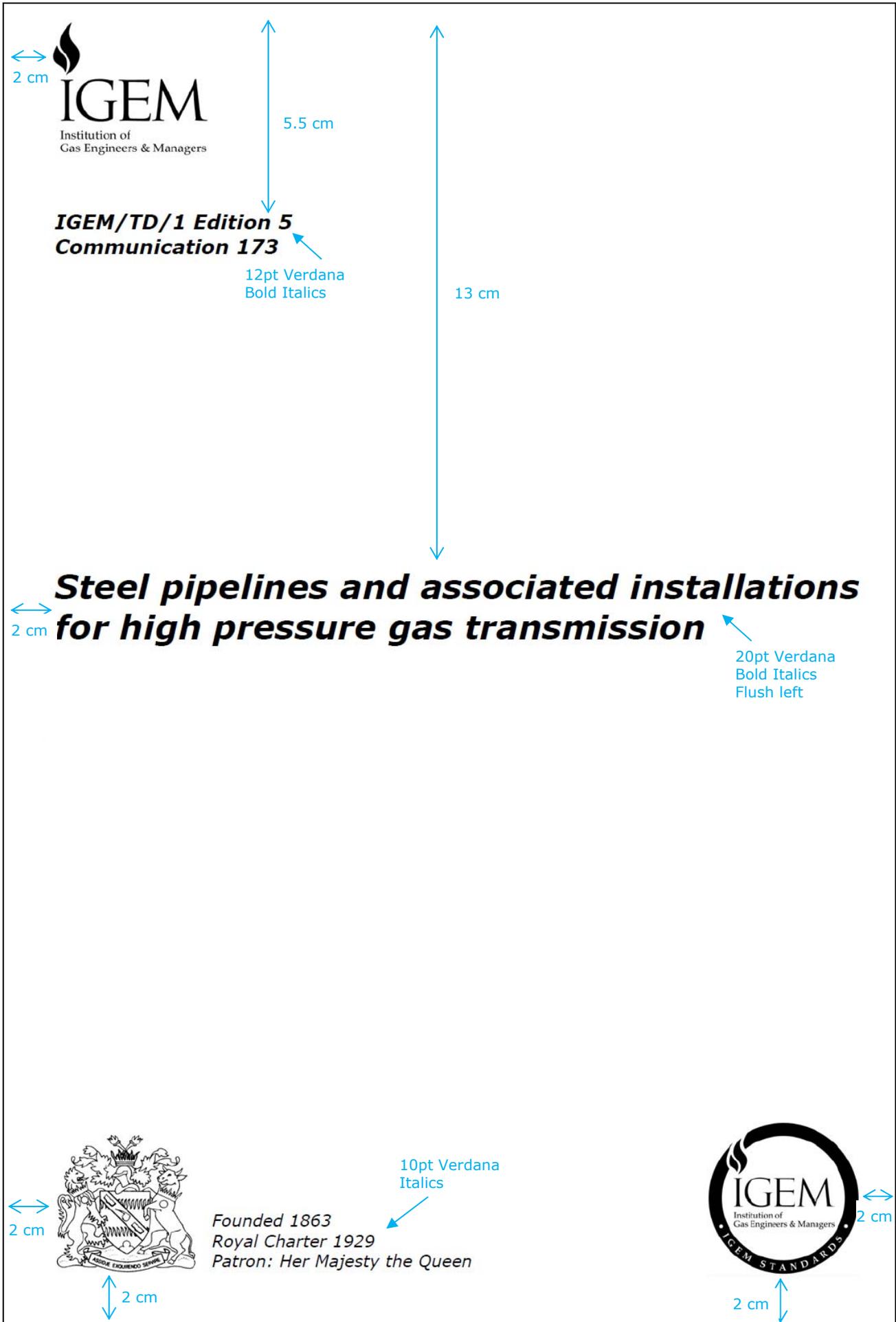
- IGEN/TD/1 Steel pipelines for high pressure gas transmission
- IGEN/UP/2 Installation pipework on industrial and commercial premises
- IGEN/UP/19 Design and application of interlock devices and associated systems used with gas appliance installations in commercial catering establishments
- IGEN/UP/1101 Guidance on gas installations for the management and staff within educational establishments
- IGE/GM/8 Non-domestic meter installations.

### A2.2 **BRITISH STANDARDS** (abbreviated titles)

- BSI/BS-0 Rules for the structure and drafting of UK standards.

### APPENDIX 3 : FRONT COVER

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**APPENDIX 4 : TITLE PAGE**



***IGEM/TD/1 Edition 5  
Communication 173***

***Steel pipelines and associated installations  
for high pressure gas transmission***

***Draft after Comment***

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12pt Verdana  
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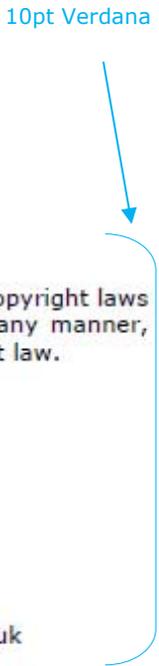
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## APPENDIX 7 : CHECKLIST FOR THE OUTLINE STRUCTURE OF THE STANDARD

ORDER OF ELEMENTS	CONTENT OF ELEMENTS	COMMENTS	✓
Front Cover	Short title and edition		
	Communication number		
	Full title		
	IGEM logo, Standards seal and crest		
Title Page	Short title and edition		
	Communication number		
	Full title		
	IGEM logo and crest		
	Price code		
Publishing/Copyright information (back of title page)	Address inc. Email, Fax and telephone numbers		
	Publication date		
	Previous editions		
	Registered charity number		
	ISBN / ISSN numbers		
	Copyright statement		
Contents	Website information		
	Detailed listing including Figures, Tables, Appendices		
1. Introduction	Informative text, Tables, Figures etc.		
2. Scope	Informative text, Tables, Figures etc.		
3. Legislation and Standards	Relevant Regulation requirements		
Other Sections as appropriate	Formal requirements, Tables, Figures etc.		
Appendix 1	Glossary, acronyms, abbreviations, symbols and units		
Appendix 2	References		
Other Appendices as appropriate	Informative text, Tables, Figures etc.		

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## APPENDIX 8 : COLOUR PALETTE FOR STANDARD COVERS

IGEM Standards are primarily published in six series. Each of these series has a colour assigned to it and new and revised Standards shall be published with their covers in these colours.

The assigned colours are as follows:

- Transmission and Distribution (TD) – Lustralux Cast Coated Pink 250 g m<sup>-2</sup>
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- Utilization (UP) – Lustralux Cast Coated Blue Metallic 250 g m<sup>-2</sup>
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- General (G) – Lustralux Cast Coated Green 250 g m<sup>-2</sup>
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- Blue Metallic – PMS 5425c
- Red – PMS 485c
- Yellow – PMS Process Yellow
- Green – PMS 348c.

**APPENDIX 9 : CHECKLIST FOR PUBLISHING A STANDARD**

ORDER OF ELEMENTS	CONTENT OF ELEMENTS	COMMENTS	✓
Technical administration	Signed approval to publish form (see Appendix 10)		
	Communication number		
	ISBN number		
	Price code		
Printing quotes	Obtain multiple quotes	Look for at least 3 different quotes	
	Check paper thickness and colour		
	Obtain PDF proof and peruse	Make sure pages begin in the right places and look for typographical errors etc.	
	Ensure there are multiple signings off for the proof		
	Record prices in a designated area		
Panel and library copies	Panel secretary needs to state how many copies they require for the Panel and these should be ordered direct to IGEM House with the remainder to Yes Response		
	IGEM shall hold three copies in the technical library		
	Copy must be sent to the British and Scottish Library		
General	Inform Yes Response		
	Update the shop		
	Update price lists		
	Update website		
	Update online license calculator		
	Ensure latest version is in the appropriate Panel folder		
Records	The record of the Panel work and published Standard is to be maintained as required in the relevant records management procedure.		

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# APPENDIX 10 : APPROVAL FOR PUBLICATION FORM



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**TITLE OF MATERIAL TO BE PUBLISHED:**

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Additional notes:

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<b>Technical Services Manager</b>
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