

***IGEM/GL/4 Edition 3
Communication 1820***

***Gas system assets –
Safety Management System***



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



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SECTION 1 : INTRODUCTION

1.1 This Standard supersedes IGE/GL/4 Edition 2, Communication 1743, which is obsolete.

1.2 This Standard specifies requirements for the safe management of assets associated with gas systems. In GB, this would mean systems that come within the scope of one or more of:

- Construction (Design and Management) Regulations (CDM)
- Gas Safety (Installation and Use) Regulations (GS(I&U)R)
- Gas Safety (Management) Regulations (GS(M)R)
- Management of Health and Safety at Work Regulations (MHSWR)
- Pipelines Safety Regulations (PSR)
- Pressure Systems Safety Regulations (PSSR).

It supplements guidance given in HSL21, HSL56, HSL80, HSL82, HSL122, HSL153, HSG65, HSG250 BS EN 15399 and BS EN 16348.

Note: For consistency with BS EN 15399 this standard uses the all-encompassing term "Gas Network Operator" (GNO) to include Licensed Gas Transporters, whether operating Distribution or Transmission networks or both and operators of private gas networks such as Housing Associations and the Ministry of Defence.

1.3 This Standard is published by the Institution of Gas Engineers and Managers (IGEM). It has been drafted by an 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.

1.4 Many of the features of effective health and safety management are indistinguishable from the sound management practices advocated by proponents of quality and business excellence. Indeed, commercially successful companies often also excel at health and safety management, precisely because they bring efficient business expertise to bear on health and safety as on all other aspects of their operations.

1.5 The principles of sound health and safety management should be fully taken into account to ensure that the system can be constructed, maintained and operated safely and effectively. Guidance on these principles is set out in HSG65.

1.6 The Standard makes use of the terms "should", "shall" and "must". Notwithstanding Sub-Section 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 procedure 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 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 in a more appropriate manner 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 regard be paid to HSG48.

1.8 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 it 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 it 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.

Note: 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.

1.9 Notwithstanding Sub-Section 1.6, this Standard does not attempt to make the use of any method or specification obligatory against the judgement of the "responsible engineer". New and improved practices may be adopted prior to this Standard being updated. Amendments to this Standard will be issued when necessary and their publication will be announced in the Journal of IGEM.

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 House, High Street, Kegworth, Derbyshire, DE74 2DA. Such requests will be submitted to the relevant Committee. Any advice given by or on behalf of IGEM does not imply acceptance of any liability, nor does it relieve any party of their statutory obligations.

1.11 This Standard was published in March 2018.

SECTION 2 : SCOPE

- 2.1 This Standard specifies a framework for the safe management of assets associated with gas systems.
- 2.2 The specified framework covers all activities, including design, installation, operation, maintenance, management including the provision of an emergency service and decommissioning of assets associated with gas systems.
- 2.3 The specified framework is based on the Plan, Do, Check, Act framework identified in the current edition of HSG65, but with further requirements to make it gas industry-specific.
- Note: It is based upon ISO 45001 high level structure that aims to bring a common framework to all management systems. The Plan-Do-Act-Check cycle (see Figure 1) can be applied to all processes covered by this standard and to the safety management system as a whole.*
- 2.4 This Standard applies to all fuel gases, including but not limited to Natural Gas (NG), Liquefied Petroleum Gas (LPG), Biogas, Hydrogen and Towns Gas.
- 2.5 Italicised text is informative and does not represent formal requirements.
- 2.6 Appendices are informative and do not represent formal requirements unless specifically referenced in the main sections via the prescriptive terms "should", "shall", or "must".