

THE INSTITUTION OF GAS ENGINEERS AND MANAGERS



TECHNICAL CO-ORDINATING COMMITTEE GOVERNANCE MANUAL

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1 REVISION LIST

IGEM TCC Governance Manual	Issue: 15	Page 1 of 3
		Date: June 2016

ISSUE NO	SECTION	DATE	DESCRIPTION OF REVISION
1	ALL	09/06	New Controlled Document
2	5.2.4	05/07	Revision of GSEC Scope
	5.4.1(c)(ii)	05/07	Revision of number of representatives
	All	05/07	Various editorial changes
3	5.4.1(c)	02/08	Revised Panel composition. Owners' representation increased from 3 to 4 (to cater for the 4 DNOs)
	New 10	02/08	Addition of policy on review of standards.
	New 11	02/08	Change Section 10 to Section 11.
	2	02/08	Deletion of paragraph referring to CD12A.
	5.1.1	02/08	Editorial changes.
	5.1.3	02/08	Editorial changes.
	5.2.1.2	02/08	Editorial changes.
	5.2.1.6	02/08	Add option of TO to support LNGC meetings.
	Various	02/08	Editorial changes to reflect "IGEM Standards" not "Technical Publications".
	5.3	02/08	Amendment to number of owner representatives (i.e. to include NTS)
4	Various	05/08	Amendment of "IGE/" to "IGEM/"
	6.7	05/08	New Sub-Section to cover urgent amendments to IGEM Standards
5	Section 5	11/08	Minor editorial change to reflect organizational changes
6	Various, 6.7 & 3	02/09	Correction for omission in last issue, plus revised document control to align all Control Documents
7	Various	03/09	Amendment to reflect amalgamation of GTDC and GSEC. Number of Committee meetings. Dissolving of LPGC

8	Various	07/09	Editorial Update and correction to clause 6.4.1 after internal audit ref: A09/11.
9	Section 5.2	04/11	Committee membership update and DBERR now DBIS
	Clause 5.4.5	06/16	Copyright statement added
	Section 11		Technical enquires added
10	Section 5	12/12	Scope 5.2.4 (c) & (k) added 5.4.4 Committee, Working Group and Panel representation - added 5.5 Other work undertaken by IGEM technical services - added
	Section 12		12.2 updated HVCA and SBGI names, Government depts., and added CoGDEM
11	Section 5	07/14	Clause 5.1.1 update organizations names Clause 5.2.1.1 update organizations names and added new representation Clause 5.2.1.3 update organizations names and added new representation
	Section 6		Clause 6.2 Clarity on the creation of documents and their review and the process of selecting a chairman and member for the Panel.
	Section 8		Secretariat responsibilities described
12	Section 5	08/14	Clause 5.1.1 update organizations names Clause 5.1.4 added reference to the environment Clause 5.2.1.1 update organizations names and added new representation Clause 5.2.1.2 update organizations names and added new representation Clause 5.2.1.3 update organizations names and added new representation Clause 5.2.4 added reference to unconventional gases
	Section 6		Clause 6.2 Clarity on the creation of documents and their review and the process of selecting a chairman and member for the Panel.
	Section 8		New section 8 Secretariat responsibilities described
	Section 12		New Section 12 Secretariat procedures described
	Section 13		Clause 13.1 add new term
13	Section 10		New clause 10.3
14	Sub-Section 5.2		Remove 'active'
	Section 13		New Section Records
15	Various sections	06/16	Update throughout for staff roles and titles
	Section 5		Clause 5.2.1.4 BG Group replaced with Shell,

	<p>Section 6 Section 8</p> <p>Section 11</p>		<p>addition of UKLNG and NGV Network to kindred bodies Clause 5.2.4 Addition of IGEM Academy Clause 5.4.1 Panel members approval updated and maximum number of Panel members altered Clause 5.4.2 Quorate explanation reworded Clause 5.4.3 Social media advertisements added in for Chair interest Clause 5.4.4 Location of file for standard consultee list changed Clause 6.2.2 Update for document creation Update secretariat responsibilities Clause 8.2 Update on Panel actions Clause 8.4 Update on Panel response for industry comment Update for Technical Enquiry process</p>
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2 INTRODUCTION

The aim of this Manual is to provide members of the Technical Team, Technical Coordinating Committee, (TCC); the Working Groups; the Sub-Committees and their Panels with guidance and reference material to enable them to operate effectively and in accordance with IGEM requirements.

3 DOCUMENT CONTROL PROCEDURE

To use this manual you must ensure you have obtained the most up-to-date version.

The most up-to-date copy of this manual can be obtained from IGEM's website, or IGEM's Secretariat Computer Network.

This Manual has been approved by the Technical Coordinating Committee and accepted by Council.

A Document Revision List is included in page 1.

Any queries on the contents of this document should in the first instance be raised with the Head of Technical Services (HTS) and then with the Chair of the Technical Coordinating Committee.

This manual shall be reviewed and amended as necessary (see QAP 8) by the HTS. All amendments to the Manual shall be presented to the TCC for approval. The approval shall be included in the Minutes of the meeting.

4 MISSION STATEMENT

IGEM's Mission Statement is as outlined in IGEM's Governance Manual (CD4).

5 TECHNICAL COMMITTEE STRUCTURE

IGEM's Council and Committee structure is as given in IGEM's CD4. IGEM's technical committee structure is as follows. TCC reports to Council.

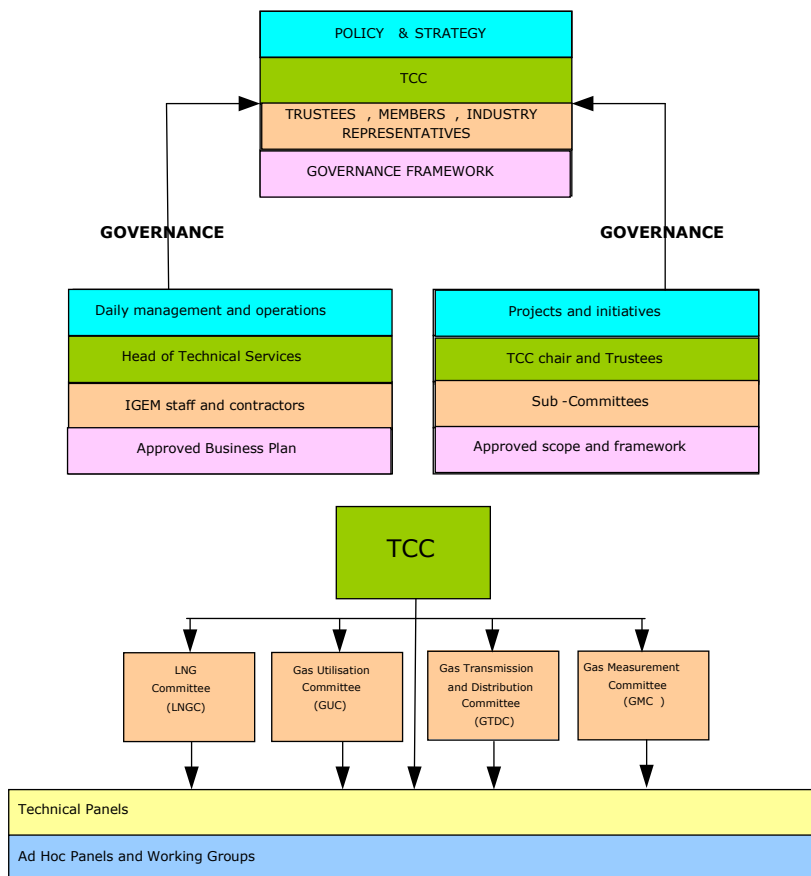


FIGURE 1 - TECHNICAL COMMITTEE STRUCTURE

The Structural Model illustrates the Governance hierarchy and reporting lines within IGEM Technical Services.

Secretariat reports to TCC and will have specific operational tasks, manpower and financial controls allocated to it via an agreed annual Business Plan, objective and scope documents and general requests. Secretariat is managed by the Chief Executive Officer (CEO). Once the Business Plan is agreed by TCC, the HTS is then responsible for the daily operational management of TCC.

5.1 TCC

5.1.1 Composition

The Committee shall comprise:

- Chairperson
- vice Chairperson who shall be a Trustee if the Chairperson is not a Trustee
- Chairpersons of all technical Sub-Committees (4)
- representative of the IGEM Young Persons Network (YPN)
- independent specialists, as appropriate, who shall be IGEM Members
- IGEM Trustees as appointed by Council (3)
- nominated representatives of:

- Energy & Utilities Association (EUA) (2)
- Gas Safe Register (Capita)
- The Gas Forum
- Association of Independent Gas Transporters (AIGT)
- Health and Safety Executive (HSE)
- Office of Gas and Electricity Markets (Ofgem)
- other organisations as appropriate.
- nominated representatives of:
 - a utilisation company (currently British Gas Services)
 - Liquefied petroleum gas (LPG) specialist (2) (currently DNV GL and Enmat International)
 - a gas supply company (currently Centrica)
 - Distribution Network Owners (DNOs) (up to 4) (currently National Grid, Northern Gas Networks, Scotia Gas Networks and Wales and West Utilities).

The Committee shall be supported at meetings by at least one of:

- IGEM CEO
- IGEM HTS
- IGEM Technical Officer (TO).

5.1.2 Quorum

Six, including the Chair or vice Chair (unless an alternate is pre-nominated and accepted by the Committee).

5.1.3 Chairperson and vice Chairperson

A Chairperson will be appointed by Council. The Chairperson is appointed for a 3 year period and is eligible to be re-appointed for up to two further 3 year periods. The Chairperson will be confirmed by Council annually. The Chairperson shall be a Chartered Engineer Member of IGEM.

The Chairperson shall not formally represent a stakeholder (but may be an employee of one).

Where the Chairperson is not a Trustee, the Vice Chairperson shall be appointed by TCC from the Trustees appointed by Council. Normally, this will be based on the term of trusteeship remaining and shall be for one year, i.e. the Trustee with the shortest remaining term of Trusteeship shall be vice Chairperson.

5.1.4 Scope

To study and review all gas engineering and other technically related matters incumbent upon IGEM as an independent Chartered body. Specifically to review matters affecting engineering, technical and operational practices in the gas industry including the potential effect that such activity or use of gas may have on the environment, as defined in the By-Laws of IGEM and those affecting the use of gas, on which IGEM might give advice by the publication of Reports and Standards or by other means and;

- advise Council on the structure for titles and status of IGEM Standards
- advise Council on the provision of research required to support the work of the TCC Sub-Committees

- consider what specialist committees are required and what should be their terms of reference and membership
- coordinate the work of Sub-Committees
- seek such advice from other individuals or organisations as may be appropriate, by co-option or otherwise and report to Council
- make recommendations for further action in collaboration with other technical bodies where appropriate
- consider and report on any other matters remitted to the Committee by Council
- plan the Committee's work programme taking into account availability of resource and viability of projects such as production of Standards.

To prepare and when necessary revise the IGEM/G series of Standards.

The Committee will meet as required subject to demand and availability with a minimum target of 4 meetings per annum.

5.1.5 Delegated Authority

Cognisant of Council's Business Plan objectives, to approve for publication and printing the Standards and other documents within the Committee's remit.

5.2 TCC SUB-COMMITTEES

5.2.1 Composition

5.2.1.1 GTDC

The Committee shall comprise:

- Chairperson
- Chairpersons of all GTDC Panels
- representative of the IGEM YPN
- independent specialists, as appropriate, who shall be IGEM Members, including to cover the areas of:
 - legislation and standards
 - LPG (2)
 - electrical engineer
 - mechanical engineer
 - safety and environment adviser
 - safety engineering and storage.
- nominated representatives of:
 - AIGT
 - Coke and Oven Manufacturer's Association (COMA)
 - EUA (3)
 - Pipeline Industries Guild (PIG)
 - HSE.
- nominated representatives of:
 - Natural Gas suppliers/shippers (currently E-ON UK and Centrica plc)
 - LPG supplier/shipper (currently Calor)
 - gas transporters (2) (currently E-ON UK and Brookfield Utilities)
 - National Grid Distribution

- Scotia Gas Networks
- Wales and West Utilities
- Northern Gas Networks
- a technology company (currently DNV GL)
- steel pipe manufacturer (Tata Steel).

The Committee shall be supported at meetings by at least one of:

- IGEM HTS
- IGEM TO.

5.2.1.2 GMC

The Committee shall comprise:

- Chairperson
- Chairpersons of all GMC Panels
- representative of the IGEM YPN
- independent specialists as appropriate, who shall be IGEM Members, including:
 - for LPG
 - high pressure metering (2).
- nominated representatives of:
 - National Measurement Office (NMO)
 - Ofgem
 - AIGT
 - Association of Meter Operators (AMO)
 - MAMCoP Board
 - Gas Safe Register (Capita)
 - EUA (6)
 - EU Skills
 - BSI/GSE/25.
- nominated representatives of:
 - a Network Owner (2) (currently National Grid, Northern Gas Networks)
 - an independent gas transporter (currently Brookfield Utilities)
 - gas suppliers (2) (currently RWE npower and Centrica)
 - meter asset managers (MAMs) (2) (currently National Grid Metering and Energy Assets)
 - a gas technology company (currently DNV GL).

The Committee shall be supported at meetings by at least one of:

- IGEM HTS
- IGEM TO.

5.2.1.3 GUC

The Committee shall comprise:

- Chairperson
- Chairpersons of all GUC Panels
- independent specialists as appropriate, who shall be IGEM Members, including:

- for LPG
- flues.
- nominated representatives of:
 - ICOM Energy Association
 - Chartered Institute of Building Services Engineers (CIBSE)
 - Combustion Engineering Association (CEA)
 - Construction Skills
 - Council for Gas Detection and Environmental Monitoring (CoGDEM)
 - EU Skills
 - Gas Safe Register (Capita)
 - HSE
 - EUA
 - UKLPG
 - Building and Engineering Services (B&ES)
 - SNIPEF.
- nominated representatives of:
 - gas transporters (3) (currently British Gas New Housing Connections; National Grid Distribution)
 - MAMs (2) (currently National Grid Metering and Energy Assets)
 - gas supplier (Biogas) (British Gas)
 - gas supplier (LPG) (currently Calor)
 - a technology company (currently DNV GL)
 - installation and service companies (4) (currently British Gas Services and British Gas Business Services, Homeserve, SA Gas Engineering).

The Committee shall be supported at meetings by at least one of:

- IGEM HTS
- IGEM TO.

5.2.1.4 LNGC

The Committee shall comprise:

- Chairperson
- LNG operators:
 - Shell
 - South Hook LNG
 - BP
 - Conoco Phillips
 - Shannon LNG
 - Canotex
 - CNG Services
 - National Grid Grain LNG
 - Hong Kong and China Gas
 - Calor.
- Gas Transporters
 - National Grid.
- Regulators

- Department for Business, Innovation and Skills (DBIS)
- HSE
- Ofgem.

- Specialists

- Kindred Bodies
 - UKLNG
 - NGV Network
 - Society of International Gas Tanker & Terminal Operators (SIGTTO)
 - International Group of Liquefied Natural Gas Importers (GIIGNL).

The Committee should be supported at meetings by at least one of:

- IGEM HTS
- IGEM TO.

All members shall represent an industrial affiliate of IGEM, or shall represent a body recognised as being a kindred body or a regulator.

5.2.2 Quorum

Six, including the Chairperson (unless an alternative is pre-nominated and accepted by the Committee).

5.2.3 Chairperson

A Chairperson shall be appointed by TCC. The Sub-Committee may nominate a succeeding Chairperson to TCC. The Chairperson is appointed for a 3 year period and is eligible to be re-appointed for up to two further 3 year periods. The chairperson shall be a Chartered Engineer Member of IGEM.

The Chairperson shall not formally represent a stakeholder (but may be an employee of one).

5.2.4 Scope

To advise and report to TCC and:

(a) GTDC, GMC, GUC

To consider all technical matters and new techniques on Natural Gas, LPG, LNG, unconventional gases and carbon dioxide; including the environmental impact of the construction and use of installations relating to:

- (GTDC) gas transmission and distribution, including
 - materials and ancillary plant
 - health and safety of people
 - the safe construction, commissioning, operation, maintenance decommissioning and ultimate dismantling of plant and equipment and related engineering processes, all in respect of gas production, storage, transportation and use.
- (GMC) meter installations, associated pressure regulation and measurement of flow of gas and measurement of gas quality as it affects the billing of energy used.

- (GUC) the utilisation of gas and, in addition where appropriate and with the agreement of relevant leading organisations in the respective field, to include other energy sources such as oil and other fuel gases.

(b) LNGC

LNG operations specifically to:

- discuss areas of common interest regarding health and safety
- share safety alerts rapidly across the LNG industry
- develop best practice guidelines for LNG operations
- provide suitable references for public domain LNG statistics
- provide guidance and support to member companies regarding Safety Cases, COMAH, HAZOP surveys, planning enquiries etc.
- provide expert input to the gas quality debate
- influence the regulatory debate regarding LNG
- promote the LNG Hub model.

(c) To agree technical work plans for the preparation or review of technical Standards or Guidance drafted by HTS.

(d) To set up and monitor the work of Technical Panels that may be required to meet the objectives of TCC.

(e) To prepare and when necessary revise:

- (GTDC) IGEM/TD, SR and GL series Standards
- (GMC) IGEM/GM series Standards
- (GUC) IGEM/UP and GL series Standards
- (LNGC) IGEM/LNG series Standards
- (All Committees) IGEM/G series Standards as directed by TCC.

All in consultation with other Sub-Committees as appropriate.

(f) To review current European and British legislation and Standards, as well as International Standards, relating to the Sub-Committee's scope. In addition to provide input through proper channels on draft legislation and Standards.

(g) To monitor important gas related developments worldwide.

(h) To nominate IGEM representatives to other bodies concerned with matters under the Sub-Committee's scope.

(i) To obtain, examine and consider reports of unusual occurrences and prepare reports for publication.

(j) To maintain an effective liaison with regulating authorities for example HSE and other bodies concerned with the gas supply industry.

(k) To promote knowledge and understanding throughout the gas industry by providing technical updates from the publication of new or revised

technical Standards or Guidance and provide training as required by industry. This may be through the technical Panels, Working Groups, IGEM Academy, industry experts and training companies.

The Sub-Committees will meet as required subject to demand and availability with a minimum target of 3 meetings per annum.

5.3 SUB-COMMITTEE WORKING GROUPS (IGEM administered Standards)

5.3.1 Composition

The Working Group shall comprise:

- Chairperson
- a member of the relevant Sub-Committee who does not represent the owners of the Standard
- three representatives of the owners of the Standard
- where appropriate one member of National Grid, National Transmission System.

Meetings shall be supported by at least one of:

- IGEM HTS
- IGEM TO.

5.3.2 Quorum

Three.

5.3.3 Chairperson

The Chairperson shall be the Chairperson of the relevant Sub-Committee or as otherwise nominated by the Sub-Committee.

PANELS

5.4.1 Composition

(a) For all IGEM-owned Standards except IGEM/G series:

- Chairperson who shall be appointed by the relevant Sub-Committee and who preferably shall be a Member of IGEM
- a suitable cross section of representatives active and expert in the subject matter all approved by the Panel Chair for the Standard being reviewed
- representatives of other sectors of the gas industry that may be affected directly or indirectly by the Standard being reviewed.

Priority should be given to membership by organisations that represent a significant number of the companies involved in the subject matter and to companies with a significant share of the relevant market activity in the sector.

Individuals not representing an organisation or company shall be Members of IGEM.

The minimum number of Panel Members shall be four and the maximum number of Panel Members shall be fifteen, both unless approved otherwise by the relevant Sub-Committee.

(b) For IGEM/G series:

- Chairperson who shall be appointed by TCC and who preferably shall be a Member of IGEM
- a suitable cross section of representatives active and expert in all gas industry sectors covered by the Procedures.

Priority should be given to membership by organisations that represent a significant number of companies involved in the subject matter and to companies with a significant share of the relevant market activity in the sectors.

Individuals not representing an organisation or company shall be Members of IGEM.

The Panel shall, as far as possible have balanced representation from the different sectors.

The minimum number of Panel Members shall be six. The maximum number of Panel Members shall be fifteen, unless approved otherwise by TCC.

(c) For IGEM administered Standards

- (i) Chairperson who shall be appointed by the relevant Sub-Committee and who shall be a Member of IGEM
- (ii) a maximum of four and a minimum of two representatives nominated by the owners of the Standard and which shall include at least one representative of the owners themselves
- (iii) one representative, active and expert in the subject matter and not a representative or employee of any of the representatives in (ii) above who shall be approved by the relevant Sub-Committee and shall be a Member of IGEM.

The minimum number of Panel Members shall be four unless approved otherwise by the relevant Sub-Committee and agreed by the owners of the Standard.

5.4.2 Quorum

A Panel is quorate if 50% of the total number of Panel members is present, including the Chairperson (unless an alternate is pre-nominated and accepted by the Panel). The total number of the Panel members does not include corresponding Panel members.

5.4.3 Chairperson

- (a) Where a Panel is to be reconvened for any purpose the Chairperson of the dormant Panel will be invited to Chair the reconvened Panel.
- (b) For any reconvened Panel without a continuing Chairperson (see (a) above) and for any new Panel a Chairperson will be sought from:

- the relevant Sub-Committee or TCC or alternatively;
- a company or organisation represented on the relevant Sub-Committee or TCC or alternatively;
- IGEM Industrial Affiliate companies via the Industrial Affiliate section or alternatively;
- volunteers resulting from publicity in IGEM's journal, website or social media advertisements.

(c) In the event of more than one nominee, the Sub-Committee (or TCC for IGEM/G series) will select a Chairperson.

5.4.4 Committee, Working Group and Panel representation

Representation to IGEM shall be determined by the scope of the work.

Organisations shall be identified whose members are involved in working in the relevant subject area such as ENA, B&ES, COMA, HHIC, ICOM, CIBSE, AIGT etc. This will include as appropriate the Regulator (HSE, Ofgem) or their nominated partner (Gas Safe Register) and may include Government departments such as DECC and DEFRA.

It may also be necessary to identify industry or subject specialist in the form of companies or individuals which need inviting to participate.

The current list of such organisation is to be found in S:\1 - Working Area\B.04.) - Tech Team Administration\B.04. - 2016-00013 - List of Standard consultees

At the start of any new or revision to any existing Standard or Guidance communication by IGEM secretariat shall be made with all the relevant consultees and invited to actively support the work.

5.4.5 Scope of technical work

The scope and target deadlines for the completion of any work of Technical Panels shall be determined by the relevant Sub-Committee (or TCC for IGEM/G series).

To aid this planning process a scoping document (see Appendix 1) shall be completed at the first Panel meeting.

5.4.6 Policy Statement

The following applies to any work on any IGEM administered Standards and shall be agreed to when scope and ideal completion dates are set:

In order to fulfill the Institution's stewardship obligations and at the same time sustain an adequate financial business model, IGEM asserts and protects its copyright over its publications and the intellectual property associated with the activities of its technical Committees and Panels.

Contributions towards the creation and development of IGEM technical Standards, whether written or verbal are accepted on the following terms unless otherwise specifically agreed in advance of submission.

- a) Contributions made by Committee, Panel members or others towards the preparation and publication of IGEN standards and related presentational material are accepted on the basis that the contributor has the right or permission to contribute.
- b) No material known to infringe another party's copyrights shall be included within a Standard unless permission has been obtained from the copyright holder.
- c) 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 with the Institution.
- d) Contributors accept that exploitation whether in full or in part may take place without reference to them or mention of their name.
- e) 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 the Institution.
- f) Other than as stated in e) above, reproduction in any form of materials published by the Institution is 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.

5.5 OTHER WORK UNDERTAKEN BY IGEN TECHNICAL SERVICES

IGEM either tender for technical work to act as secretariat for gas industry bodies such as HSE, Gas Safe Register and Ofgem or volunteer to act on behalf of industry to provide technical services.

The scope of the work shall be agreed in writing between the parties and a contract prepared and agreed as required if appropriate.

Terms of reference and membership of the working group shall be agreed and principles outlined in Sub-section 5.4 may be taken into consideration.

6. TCC, SUB-COMMITTEE, SUB-COMMITTEE WORKING GROUP AND PANEL PROCEEDINGS

6.1 GENERAL STRATEGY, POLICY AND COMMUNICATIONS OTHER THAN IGEN STANDARDS

Decisions shall be taken by majority consensus. In cases of clear division, matters shall be referred to the relevant Sub-Committee, to TCC or to Council, as appropriate.

6.2 DRAFTING PROCESS – IGEN-OWNED STANDARDS

The drafting process shall be as outlined in Figure 2.

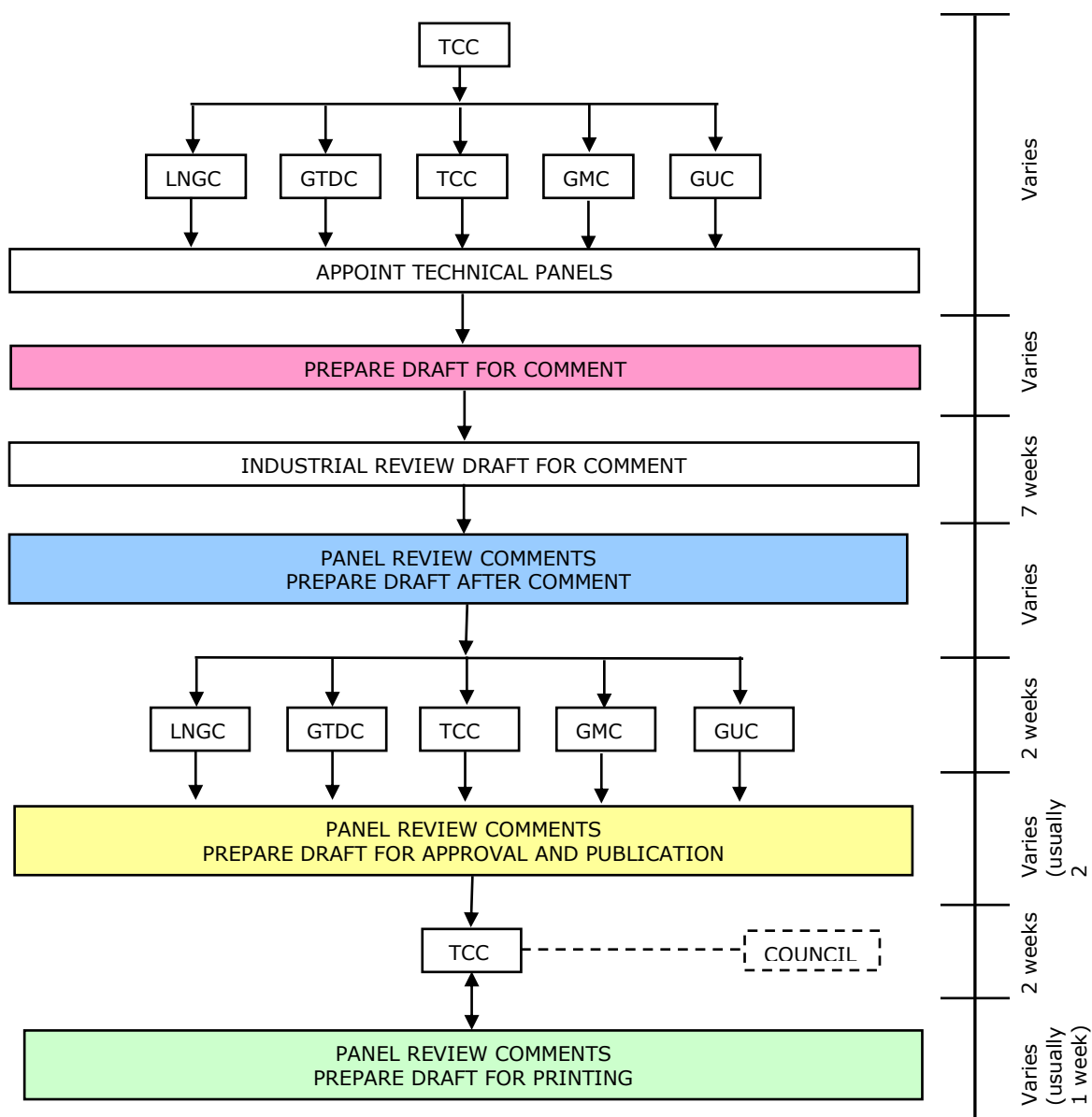


FIGURE 2 – DRAFTING PROCESS. IGEN OWNED STANDARDS.

6.2.1 Initiation of a Guidance or Standard document

- a) New documents
IGEM is approached with request for a new document. This maybe though a consultation, Committee members or by an approach from industry.
- b) Existing documents
Through the age of the document around five years old or request for review because of changes in legislation or technology (see Section 10).

6.2.2 Document creation

- a) New document
A draft document, entitled 1st Working draft will be created by either IGEM secretariat, by the Panel, an expert on the subject or an industry body.
- b) Existing document (see Section 10)
A draft document, entitled 1st Working draft will be created by either IGEM secretariat, by the Panel or a member of the existing Panel.

The 1st Working draft will be sent to the Panel before the first meeting and members actively invited to make comments ready for the review. The 1st working draft may also be sent out to all the relevant consultees and invited to actively support the work. They will be requested to supply initial comment on the document, seeking views on subjects to be added or details included or excluded on the subjects already included in the draft. This period for comment will be four weeks.

At this time, a Chairman for the Panel will be sought if the document is new work or the Panel Chairman has retired or discussions will have taken place with the existing Panel Chairman about the review and the changes that were known to be required.

A Panel Chair can be recruited by several means. IGEM would seek a volunteer by nomination from an organisation knowing that the creation or review is underway or enlisting an industry expert. The nomination of all Panel Chairs will be referred to the relevant Committee for approval.

6.2.3 Technical Panel work.

Decisions on technical content shall be taken by overwhelming majority consensus of the Technical Panel. In cases of significant division, matters shall be referred to the relevant Sub-Committee, to TCC or to Council as appropriate (see Sub-Section 6.3)

The Panel chairman, with the nominated secretary will seek Panel members from across the relevant part of the industry and the Chairman is obliged to ensure that the make-up of the technical Panel represents the relevant industry sector. This maybe by looking for new members or confirming the retention of existing Panel members.

The Panel will then review the document, considering in the first instance the initial comment received from the consultees to bring it to a version entitled 'Draft for comment'.

This will be sent out to all industry consultees for a period of six weeks. All comments will be collated and reviewed by the Panel who will agree responses. The document drafts are then entitled '1st Working draft after comment' etc.

When the Panel has agreed all responses the document is sent for approval to the parent Committee for a period of two weeks. The document is then entitled 'Draft after comment v1 etc'.

Subject to the receipt of comment by the Committee, which needs to be resolved by the Panel and accepted by the Committee, the document is then sent to TCC now entitled 'Draft for Approval and Publication' for two weeks.

Finally and subject to comment by TCC, which has to be resolved by the Panel and accepted by TCC the document is reviewed for editorial and IGEM style conformance then sent for publishing.

6.3 DRAFTING PROCESS – IGEM-ADMINISTERED STANDARDS

The drafting process shall be as outlined in Figure 3. Decisions on technical content shall be taken by overwhelming majority consensus of the Technical Panel. In cases of significant division, matters shall be referred to the pre-selected Sub-Committee Working Group.

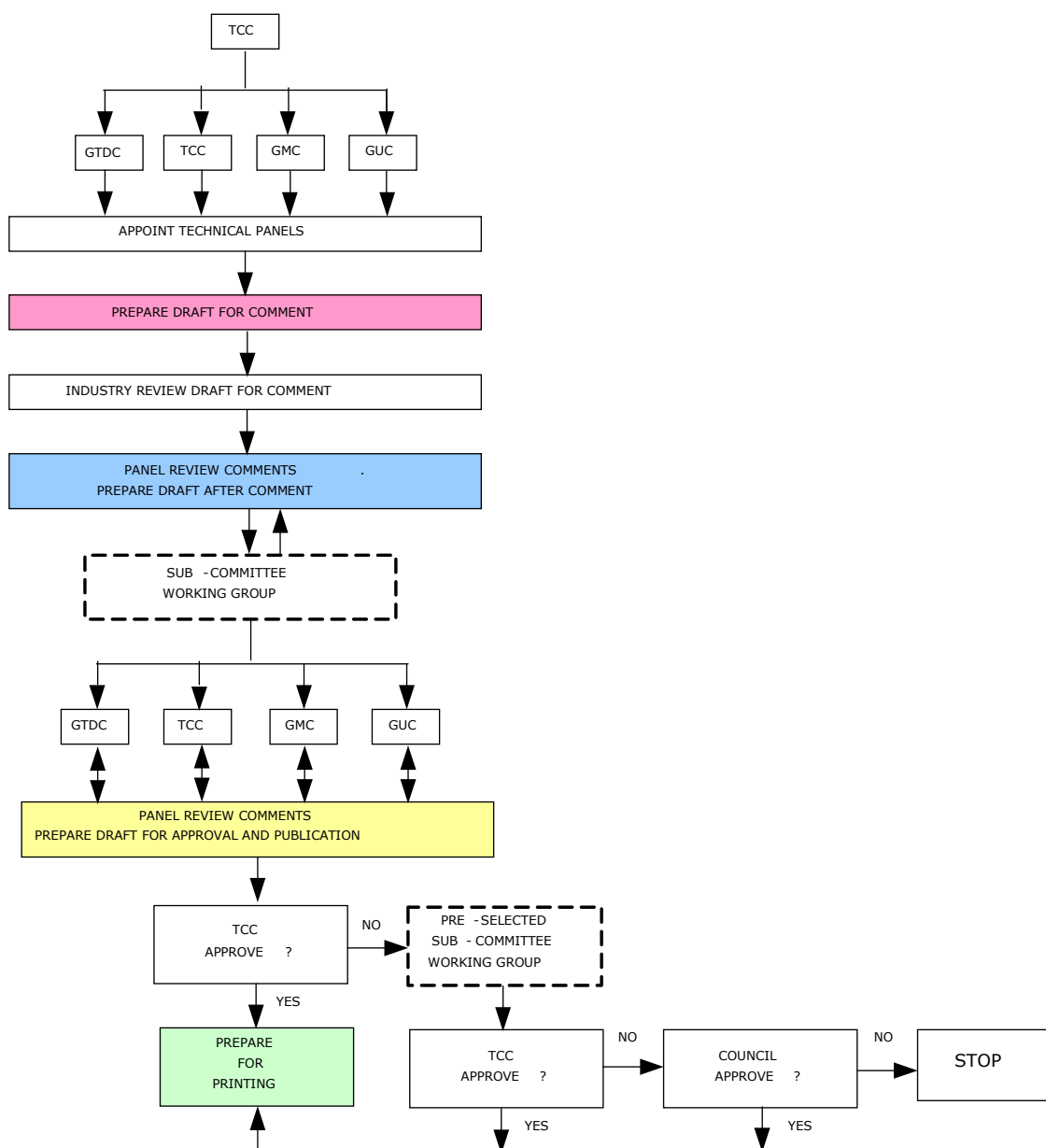


FIGURE 3 - DRAFTING PROCESS. IGEM ADMINISTERED STANDARDS. FLOWCHART

6.4 APPROVAL REQUIREMENTS FOR ALL DRAFT STANDARDS AND OTHER DOCUMENTS

6.4.1 In general all drafts shall be approved by unanimous consensus at all stages. However provided the majorities shown in Table 1 or Table 2 as appropriate

are achieved, drafts may proceed to the next stage in which case all comments (not including industry comments) that remain unresolved shall be conveyed to the approving Committee for consideration.

For Drafts for Approval and Publication, all outstanding comments shall be resolved by TCC. If this cannot be achieved by correspondence the matter shall be addressed at a TCC meeting. The majorities shown in Table 1 or Table 2 as appropriate shall always be achieved. Any comments not accepted by TCC shall result in a formal notification of TCC decisions to the Sub-Committee(s)/Panel Member(s) concerned. However for IGEM administered Standards, publication is not permitted without the consent of the relevant Sub-Committee Working Group.

6.4.2 All "nil response" shall be assumed as "approved unconditionally".

6.4.3 When approval is sought by correspondence, members' responses shall be classified by the Committee/Panel Secretary as:

- (a) Approved unconditionally
- (b) Approved subject to consideration of proposed amendment
- (c) No comment (taken to be "approval")
- (d) Rejected subject to amendment
- (e) Rejected.

Note: Rejection under (d) and (e) assumes it is accompanied by the reason(s) for rejection and preferably, alternative suggestions.

Any Draft after Comment shall be approved by the Panel Chairperson(s) and where applicable Sub-Committee Working Group Chairperson(s) before proceeding.

Any Draft for Approval and Publication shall be approved by the relevant Sub-Committee Chairperson(s) before proceeding.

DRAFT	BY	APPROVAL AT MEETING	APPROVAL BY CORRESPONDENCE*
FOR COMMENT or REJECTED DRAFT AFTER COMMENT or REJECTED DRAFT FOR APPROVAL AND PUBLICATION	PANEL	AT LEAST 75% PRESENT	AT LEAST 75% RESPONDENTS OTHERWISE A MEETING SHALL BE CONSIDERED
AFTER COMMENT	SUB-COMMITTEE	AT LEAST 75% PRESENT	AT LEAST 75% RESPONDENTS
FOR APPROVAL AND PUBLICATION	TCC	AT LEAST 75% PRESENT	100% RESPONDENTS OTHERWISE A MEETING SHALL BE CONSIDERED
FOR PRINTERS	SECRETARIAT	-	-

* All "nil response" are assumed as "approved unconditionally".

TABLE 1 - REQUIREMENT FOR APPROVAL OF DRAFT IGEM OWNED STANDARDS

DRAFT	BY	APPROVAL AT MEETING	APPROVAL BY CORRESPONDENCE*
FOR COMMENT or REJECTED DRAFT AFTER COMMENT or REJECTED DRAFT FOR APPROVAL AND PUBLICATION	PANEL	AT LEAST 75% PRESENT	AT LEAST 75% RESPONDENTS OTHERWISE A MEETING SHALL BE CONSIDERED
ALL	SUB-COMMITTEE WORKING GROUP	AT LEAST 75% PRESENT	100% RSPONDENTS OTHERWISE A MEETING SHALL BE HELD
AFTER COMMENT	SUB-COMMITTEE	AT LEAST 75% PRESENT	AT LEAST 75% RESPONDENTS
FOR APPROVAL AND PUBLICATION	TCC	AT LEAST 75% PRESENT	100% RESPONDENTS OTHERWISE A MEETING SHALL BE CONSIDERED
FOR PRINTERS	SECRETARIAT	-	-

* All "nil response" are assumed as "approved unconditionally".

TABLE 2 - REQUIREMENT FOR APPROVAL OF DRAFT IGEN-ADMINISTERED STANDARDS

6.4.4 To assist compliance with Table 1, TCC and Sub-Committees as appropriate shall identify in advance of receiving relevant drafts those Committee Members having specific expertise in the relevant subject, and obtain the agreement of those Members to review and approve/comment upon the drafts.

6.4.5 Drafting Panels shall identify on all Drafts after Comment, those areas which were subject to varying industry views or which have been demonstrated to be potentially controversial, for example if industry would incur significant additional costs as a result.

6.5 APPROVAL REQUIREMENTS FOR FORMAL COMMITTEE COMMUNICATIONS (other than Standards)

All formal Committee communications, not agreed previously at Committee level, shall be pre-approved before circulation by the Chairperson of the relevant Committee before wider circulation.

6.6 APPROVAL REQUIREMENTS FOR OTHER THAN FORMAL COMMITTEE COMMUNICATIONS AND STANDARDS

All Committee communications other than those under 6.4 and 6.5 shall be approved by HTS or TO as appropriate.

6.7 APPROVAL REQUIREMENTS FOR URGENT AMENDMENTS TO IGEN STANDARDS

Where the need for an urgent amendment to an IGEN Standard is identified:

- the urgency shall be assessed by the HTS. Where the amendment is not considered urgent, the matter shall be referred to the appropriate Technical Sub-Committee or TCC as appropriate. Otherwise the TSM shall consult the CEO. Thereafter if determined not urgent the matter shall be referred to the appropriate Sub-Committee or TCC as appropriate.
- where determined as urgent, a meeting shall be called (which may be via a conference call) of the Chairpersons of the respective Committee(s) and Panels, the HTS and representatives of the Committees and Panels who are key in the urgent issue.
- suitable action, which may include issue of an amendment shall be determined and implemented. The procedures as in Section 6 above shall be motioned as seen as practicable but approval for the chosen action and amendment may if necessary, be sought/given after formal issue of an amendment.

Note: "Urgency" would be categorised according to potential adverse effects on safety, financial, political or social grounds.

7 OWNERSHIP AND LIABILITY FOR ALL FORMAL DOCUMENTS

7.1 IGEN OWNED STANDARDS AND OTHER DOCUMENTS

IGEM accepts legal ownership and any liability for the content of IGEN owned documents. The copyright and intellectual property of any content shall be solely owned by IGEN except where material donated by another party is acknowledged as solely owned by that other party or jointly owned by that party and IGEN.

7.2 IGEN ADMINISTERED STANDARDS

IGEM accepts custodianship of all such documents on behalf of a 3rd party organisation but does not accept legal ownership and therefore does not accept liability for any content of such documents.

8 DOCUMENTATION

Secretariat responsibilities in support of the technical Committees, Working Groups and technical Panel are:

- the point of contact for all correspondence in relationship to the work of that group
- arrange all the meetings and book meeting rooms
- arrange refreshments and catering
- attend all the meetings and take the Minutes or Notes
- coordinate and facilitate the completion of agreed actions of the group
- take all necessary steps to expedite the work of the group
- make amendments to the document as agreed and supplied by the Panel
- maintain the integrity of the document throughout the review process
- coordinate with the Communications team on the work of the group to enable dialogue with IGEN membership and community through the Flame and Journal
- coordinate with the Events team for seminars and training events as the result of work by the technical groups.

8.1 COMMITTEE MINUTES AND PANEL NOTES

Minutes and Notes of Committee and Panel meetings preferably shall be issued within 2 weeks of the meeting and in any event as soon as practicable.

8.2 ACTIONS

All actions will be recorded on the meeting Notes and secretariat will facilitate the actions for completion ensuring any actions are done.

8.3 INDUSTRY AND COMMITTEE COMMENTS

8.3.1 A standard Comment Submission Form shall be issued with every Draft for Comment (Form TS/C/1A) and unless otherwise decided by TCC the period allowed for return of comments will be 6 weeks. Normally industry comments will only be accepted if submitted on this form.

8.3.2 A standard Approval Form (Form TS/AP/1) shall be issued with every Draft after Comment and Draft for Approval and Publication. Unless otherwise decided by TCC, the period allowed for return of completed forms will be 2 weeks.

8.4 RESPONSE TO INDUSTRY COMMENTS

All comments shall be consolidated by Secretariat on a Form TS/C/1D for Panel consideration. Consolidated comments and the agreed responses will remain available on request to the Technical Services Team.

9 RESOURCING THE DRAFTING AND PRODUCTION OF IGEM OWNED AND IGEM ADMINISTERED STANDARDS AND OTHER DOCUMENTS

9.1 IGEM OWNED

A business plan shall be prepared for each proposed item of work and this shall assume:

- all associated expenditure by IGEM is to be recovered by income from subsequent sales of the documents and if applicable associated Technical Seminars.

Note: It is acceptable for the income from one or more document(s) to subsidise the expenditure on one or more other Standards/document(s) at the discretion of TCC.

- the input by all relevant Committee and Panel Members is provided on a voluntary basis.

Note: It is acceptable to pay one or more members a fee provided the project has been sufficiently subsidised by a party other than IGEM, for example by sponsorship.

- where application is made travel and if unavoidable, accommodation expenses may be payable for individual relevant Committee and Panel Members.

Note: Normally such expenses will be covered by the organisation or company represented.

9.2 IGEM ADMINISTERED

A business plan shall be prepared for each project or individual proposed item of work as applicable and this shall assume:

- all associated expenditure by IGEM is to be covered by income from fees payable in advance by the owner(s) of the documents and from subsequent sales of the documents. Cross subsidy from income from any other source in particular from 9.1 above is not permitted at any point
- the input by all Panel members representing the owners of the documents is provided on a voluntary basis and no expenses will be payable
- the input by all Panel members not representing the owners of the documents is provided on a voluntary basis unless requested by/agreed with the owners of the document
- where application is made for Panel members not representing the owners of the documents travel and if unavoidable, accommodation expenses may be payable and this would represent "associated expenditure" (see above).

10 REVIEW OF IGEM STANDARDS

10.1 The month of publication of any Standard is recorded.

10.2 Every Standard shall be reviewed no more than 5 years after publication.

- a) If 5 years has lapsed the Standard is reviewed at a high level (usually within a 6 month period prior to the due date) by a limited number of experts (including the Chairman of the Panel that drafted it if still active). A report shall be made to the parent Technical Sub-Committee which then decides on one of these actions;
- (i) Set up a Panel to revise the Standard to the next edition or
 - (ii) Agree updates for either a new edition or amendment of existing edition or
 - (iii) Confer a further period of approval for the existing edition (usually, this is 1, 2 or 3 years) after which time the high level review is repeated or
 - (iv) Confer "obsolescence" with no replacement or
 - (v) Confer "obsolete" with a replacement.

Once option (i) or (ii) is selected, the Standard is considered "under review" and no time limits are set for completion, although clearly there are ideal deadlines set. Such Standards are continually under review by the parent Sub-Committee which will determine any need for urgent amendment of the existing edition while work on the new edition is being carried out.

A period of up to 6 months beyond the 5 year Review date is allowed to implement steps (iii), (iv) or (v).

- (b) At any time in the life of a Standard, its parent Sub-Committee may consider representations for amendment or revision to a new edition

which if agreed would then follow either step 10.2(a)(i) or 10.2(a)(ii), or could result in step 10.2(a)(iv) or 10.2(a)(v).

10.3 Amendments to Standards, guidance or specifications

Representations to amend IGEM documents may be made through technical enquiries, by Committee or Panel members or requests from industry.

All such requests are to be entered on an industry revision table (TS/C/1D) and the enquiry/request is to be sent to the relevant Panel Chair or Technical Committee Chairman in the absence of a Panel Chairman.

If the enquiry/request is seen to be justified, then proposed text should be proposed by the appropriate Panel member and circulated to the Panel for approval.

Subject to approval and acceptance by the Chairman of the relevant Technical Committee an amendment to the document is to be drafted by the Panel secretary and published.

10.4 Every decision made with respect to 10.2 above is recorded in Meeting Minutes or agreed papers of the respective parent Sub-Committee.

11 TECHNICAL ENQUIRES

IGEM provides a technical enquiry service via the Secretariat. Enquiries are received via IGEM's Website, email, letter, or fax.

All technical enquiries about IGEM Standards or a related gas engineering subject must be submitted in writing.

The TO responsible for the enquiry will, if necessary pass the enquiry onto an appropriate Consultant/Panel member who will respond to the TO. The TO responsible for the enquiry will then pass the response to the enquirer.

Any subject regarded as being potential controversial must have the reply approved by IGEM through the CEO prior to release.

There is a detailed procedure for processing technical enquires, see QAP16.

12 SECRETARIAT PROCEDURES

12.1 Procedures governing the work of the Technical Services secretariat team are developed by the team to manage the processes described in this manual and in compliance with the requirements of the Governance manual CD4.

12.2 These procedures are reviewed and approved by the HTS.

12.3 These procedures have version control and are reviewed and updated as necessary.

12.4 These procedures are made available to the members of the Technical Services team on the IGEM IT system at S:\1 - Working Area\B.04.) - Tech Team Administration.

13 RECORDS

- 13.1** Records of all Committee, Working Group and Panel meetings shall be in paper and electronic format.
- 13.2** All drafts of technical documents and the information provided from the Committee or Panel members shall be captured in a Technical Services Paper(s) or document appropriately referenced in the relevant Minutes or Notes and retained as an electronic record.
- 13.3** Archiving of all technical Committee, Working Groups or Panels is to be carried out in accordance with Technical Services Guidelines 14 and 14a.
- 13.4** The management of Technical Services records is undertaken in accordance with the Records management manual.
- 13.5** Technical records are to be retained indefinitely because the legal, safety, research and technical justification contained in IGEM's Guidance, Standards and Specification documents can confirm the basis of design and installation of gas systems for management of change and investigations on existing assets as well as providing an historical perspective on the development of the industry.

14 GLOSSARY AND ACRONYMS

14.1 GLOSSARY

IGEM owned documents	Documents that are drafted by and solely owned by IGEM.
IGEM administered documents	Documents that are drafted, but which are not owned, by IGEM.
unconventional gases	mostly methane gas produced from anaerobic digestion, landfill sites, shale, coal beds and manufactured such as town gas etc

14.2 ACRONYMS

AIGT	Association of Independent Gas Transporters
AMO	Association of Meter Operators
B & ES	Building and Engineering Services (was HVCA)
CD	controlled document
CEO	Chief Executive Officer
CEA	Combustion Engineering Association
CIBSE	Chartered Institution of Building Services
CoGDEM	Council for Gas Detection and Environmental Monitoring
COMA	Coke and Oven Manufactures Association
DECC	Department of Energy and Climate Change
DEFRA	Department of the Environment, Food and Rural Affairs
DNO	Distribution Network Owner
EUA	Energy and Utilities Association (was SBGI)
GIIGNL	International Group of Liquefied Natural Gas Importers
GMC	Gas Measurement Committee
GUC	Gas Utilization Committee
GTDC	Gas Transmission and Distribution Committee
HSE	Health and Safety Executive
IGEM	Institution of Gas Engineers and Managers
LNG	Liquefied Natural Gas
LNGC	Liquefied Natural Gas Committee
LPG	Liquefied Petroleum Gas
MAM	Meter Asset Manager
NMO	National Measurement Office
Ofgem	Office of Gas and Electricity Markets
PIG	Pipeline Industries Guild
SIGTTO	Society of International Gas Tanker & Terminal Operators
TCC	Technical Co-Ordinating Committee
TO	Technical Officer
HTS	Head of Technical Services
YPN	Young Persons Network.

APPENDIX 1 : PANEL SCOPING DOCUMENT

Technical Panel Review - scoping document

Title of standard		Reference No.	
Authorising Committee			

	Name	Email contact details	Sponsoring organisation	Signature *	Date
Chair					
Secretary					
Panel members					

* By signing this scoping agreement you are agreeing to the terms and conditions of the Institutions policy statement (See CD12 5.4.5) with regard to copyright and intellectual property. In addition you are confirming that contributions made by you as a panel member have the permission to contribute to IGEM any and all intellectual property in such material; and all rights of copyright in the materials and texts contributed shall, for the purposes of the standard, be fully vested with IGEM.

Target project timeline and deliverables

First draft for comment	
Issue for industry comment	
Final draft for approval	
Publication	
Summary article for publication to membership	