

THE INSTITUTION OF GAS ENGINEERS AND MANAGERS

TRANSMISSION AND DISTRIBUTION SERIES

AMENDMENTS AT SEPTEMBER 2011

Amendments apply to the following publications:

- **IGEM/TD/1 Edition 5. Communication 1735**
Steel pipelines for high pressure gas transmission
Amendments: Feb 2009 (1 side)
Amendments: Oct 2010 (1 side)
- **IGEM/TD/1 Edition 5. Supplement 1. Communication 1736**
Handling, transport and storage of steel pipe, bends and fittings
No Amendments
- **IGEM/TD/2. Communication 1737**
Application of pipeline risk assessment to proposed developments in the vicinity of high pressure Natural Gas pipelines
Amendments: Feb 2009 (1 side)
- **IGE/TD/3 Edition 4. Communication 1677**
Steel and PE pipelines for gas distribution
Amendments: Feb 2005 superseding all previous amendments (3 sides)
- **IGE/TD/3 Edition 4. Supplement 1. Communication 1682**
Handling, transport and storage of PE pipe and fittings
No Amendments
- **IGE/TD/4 Edition 4. Communication 1725**
Gas Services
No Amendments
- **IGE/TD/12 Edition 2. Communication 1681**
Pipework stress analysis for gas industry plant
Amendments: Jan 2005 (3 sides)
- **IGEM/TD/13 Edition 2. Communication 1755**
Pressure regulating installations for Natural Gas, Liquefied Petroleum Gas and Liquefied Petroleum Gas/Air
No Amendments
- **IGEM/TD/101 Edition 2. Communication 1740**
Adoption of pipe systems by a GT – management of UIP activities
No amendments

If the user copies these amendments onto A4 labels, the Amendments can be cut out and applied to the appropriate places within the relevant technical publications i.e. the individual Amendments are tailored to fit over the existing text.

ENHANCEMENTS

There are currently no enhancements.



**IGEM/TD/1 EDITION 5
COMMUNICATION 1735
2008**

The following amendments (February 2009) apply to all copies of IGEM/TD/1 Edition 5 published in December 2008.

Figure 6 Delete key entirely and substitute as follows to amend the values for C₂

		C ₁	C ₂
A	Wall thickness < 9.52 mm	0.12	12
B	Wall thickness ≥ 9.52 mm	0.08	5
C	Wall thickness ≥ 11.91 mm	0	3

The following amendments (October 2010) apply to all copies of IGEM/TD/1 Edition 5 published in December 2008.

Clause 6.7.10.1 Delete Note entirely. Substitute:

Note: BS EN 1998 states that there are, generally, no requirements in the UK to consider seismic loading, and the whole of the UK may be considered an area of very low seismicity in which the provisions of BS EN 1998 need not be applied. However, the UK National Annex to BS EN 1998, PD 6698, states that certain types of structure, including large diameter high pressure gas pipelines and the associated installations, by reason of their function, location or form, may warrant an explicit consideration of seismic actions.

Sub-Section A5.6 Delete equations for Unrestrained Pipework and Restrained Pipework and substitute:

For unrestrained pipework i.e. free to move:

$$dP = \frac{10(A - 3B)}{\frac{Dm}{4E.tn} \cdot (5 - 4\nu) + \frac{1}{C}}$$

For restrained pipework i.e. buried or anchored:

$$dP = \frac{10(A - 2B)}{\frac{Dm}{E.tn} \cdot (1 - \nu^2) + \frac{1}{C}}$$

END OF AMENDMENTS TO IGEM/TD/1 EDITION 5.

**IGEM/TD/2
COMMUNICATION 1737
2008**

The following amendments (January 2009) apply to all copies of IGEM/TD/2 published in December 2008.

Table 13 Delete title entirely and substitute

**TABLE 13 - PIPELINE RUPTURE FAILURE FREQUENCY DUE TO NATURAL
LAND SLIDING**

END OF AMENDMENTS TO IGEM/TD/2.

**IGE/TD/3 EDITION 4
COMMUNICATION 1677
2003**

The following amendments (January 2005) apply to all copies of IGE/TD/3 Edition 4 published in 2003.

Inner front cover

(Not essential) Amend to:

*Price Code: T10
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Charnwood Wing
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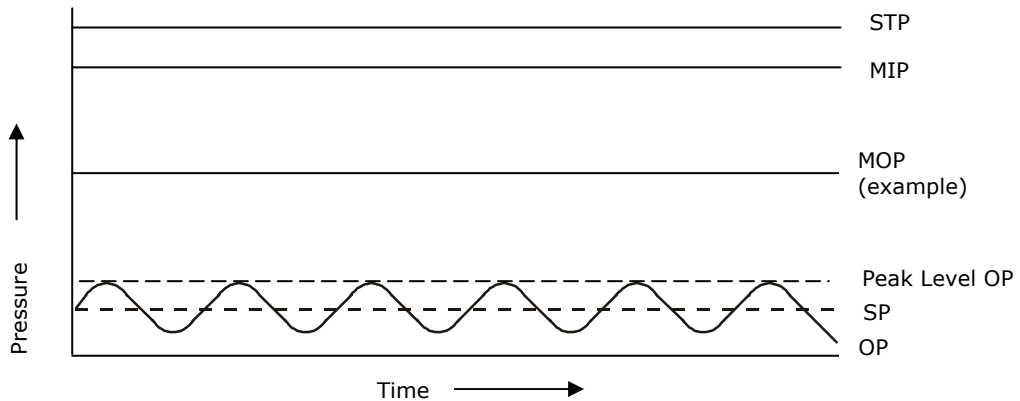
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Sub-Section 1.13

**(Not essential) Add at end: Address amended to:
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Figure 1

Delete entirely and substitute as follows to amend the representation of MOP



STP	=	Strength test pressure
MIP	=	Maximum incidental pressure
OP	=	Operating pressure
MOP	=	Maximum operating pressure
SP	=	Set point of the regulator.

Note: This is extracted from IGE/TD/13 and simplified for the purposes of IGE/TD/3 Edition 4.

Sub-Section 2.4

1st paragraph. 3rd Line. Amend "10" to: 11

Clause 5.4.2

Page 22. Top line. Delete entirely. Substitute:

$$f_{sp} = (14.7519 + 3.5657X + 0.0362X^2)^{-2}$$

Table 5 **5th sub-row of each primary row (5 in total). Delete 't ≤ 9.52'. Substitute:**

t < 9.52
t < 9.52
t < 9.52
t < 9.52
t < 9.52

Table 5 **6th sub-row of each primary row (5 in total). Delete 't > 9.52 ≤ 11.91'. Substitute:**

t ≥ 9.52 < 11.91
t ≥ 9.52 < 11.91
t ≥ 9.52 < 11.91
t ≥ 9.52 < 11.91
t ≥ 9.52 < 11.91

Table 5 **7th sub-row of each primary row (5 in total). Delete "t > 11.91". Substitute:**

t ≥ 11.91
t ≥ 11.91
t ≥ 11.91
t ≥ 11.91
t ≥ 11.91

Note: *If your copy has not been amended previously (2003), no change is needed to the original.*

Table 5 **4th primary row. 3rd and 4th proximity columns. Delete '5' (twice). Substitute: 8 and 8**

Clause **Delete entirely. Substitute:**

7.4.1.2 A standpipe should be connected at one end of the pipework to be tested and should incorporate a relief valve set to lift at 5% above STP. Gauges should be fitted as appropriate. Consideration should be given to the fitting of pressure recorders.

Clause **Delete entirely. Substitute:**

7.4.1.7 The temperature of the air inside the pipe should be stable before commencing the test.

Note: Typically, temperatures will be stable within 10 minutes for small volumes and up to 2 hours for large volumes.

Clause **Add under current text:**

7.8.1 *Note: See note at bottom of this page.*

Add under the page number 65:

Note to clause 7.8.1: If a test failure is indicated, it is permitted to extend the test period to confirm that the "failure" is not attributable to falling temperature or creep effects. However, the extension is not permitted if the ambient temperature is rising.

**Clause
8.4.3.2**

Delete 1st paragraph. Substitute:

A simple squeeze off tool should be used only in the following circumstances:

- for pipelines of diameter ≤ 180 mm and OP ≤ 75 mbar
- for pipelines of diameter ≤ 63 mm and OP ≤ 2 bar.

**Clause
8.4.4.1**

Delete 1st and 2nd paragraphs. Substitute:

For a pipeline of OP not exceeding 75 mbar, the equipment used for stopping-off should utilize semi-supported bags for a nominal bore ≤ 300 mm or fully-supported inflated bags for larger bores. Unsupported bags should not be used.

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END OF AMENDMENTS TO IGE/TD/3 EDITION 4.

**IGE/TD/12 EDITION 2
COMMUNICATION 1681
2003**

The following amendments (January 2005) apply to all copies of IGE/TD/12 Edition 2 published in 2003.

**Inner
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Price Code: T6

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**Sub-
Section
1.10**

(Not essential) Address amended to:

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Clause 2.1 4th Bullet. Delete "IGE/GM/1". Substitute: IGE/GM/8

Clause 5.2.1 Delete formula entirely. Substitute:

$$t_{\min} = \frac{PDX}{20fS_{\gamma T}}$$

Clause 8.5.7.1 In 1st equation. Delete n_{eg} . Substitute: n_{eq}

A2.2.1 2nd Bullet. Delete "Distribution mains". Delete Note. Substitute: Steel and PE pipelines for gas distribution

A2.2.2 Delete 1st bullet. Substitute:

- IGE/GM/8 on gas meter installations
Note: Publication anticipated in 2005.

A2.3 1st Bullet. Add a note:
Note: Now obsolete. Superseded by BS EN 13480, metallic industry piping.

A3.3.1 Delete Equation for Sq. Substitute:

$$S_q = i_q \frac{16 D_o M_q}{\pi [D_o^4 - D_i^4]} + i_s \frac{4 V_T}{\pi [D_o^2 - D_i^2]}$$

A3.3.2 Delete all three equations. Substitute:

$$S_h = i_p \frac{P D_o}{2T} \pm i_b \frac{32 M_b D_o}{\pi [D_o^4 - D_i^4]}$$

$$S_a = i_t \left[\left(\frac{P D_o}{4T} + \frac{4F}{\pi [D_o^2 - D_i^2]} \right) \right] \pm i_t \frac{32 M_b D_o}{\pi [D_o^4 - D_i^4]}$$

$$S_q = i_q \frac{16 D_o M_q}{\pi [D_o^4 - D_i^4]} + i_s \frac{4 V_T}{\pi [D_o^2 - D_i^2]}$$

A3.3.3.1 Delete 6th line (2nd equation for S_a). Substitute:

$$S_a = i_p \frac{P d_o}{4t} \pm i_b \frac{w 32 M_b d_o}{\pi [d_o^4 - d_i^4]} + i_t \frac{4F}{\pi [d_o^2 - d_i^2]}$$

A3.3.3.2 Delete 4th line (1st equation for S_a). Substitute:

$$S_a = i_p \frac{P D_o}{4T} \pm i_b \frac{32 M_b D_b}{\pi [D_b^4 - D_i^4]} + i_t \frac{4F}{\pi [D_b^2 - D_i^2]}$$

Delete 6th line (2nd equation for S_a). Substitute:

$$S_a = i_p \frac{P d_o}{2t} \pm i_b \frac{32 M_b D_b}{\pi [D_b^4 - D_i^4]} + i_t \frac{4F}{\pi [D_b^2 - D_i^2]}$$

Delete 7th line (equation for S_q). Substitute:

$$S_q = i_q \frac{16 D_b M_q}{\pi [D_b^4 - D_i^4]} + i_s \frac{4 V_T}{\pi [D_b^2 - D_i^2]}$$

A4.10.2 Table 13. 1st column, 2nd row. Insert: 1.0**A4.10.4 Table 15. Note 1. Delete entirely. Substitute:**

If $L_i \geq 0.5 \sqrt{r_i T_b}$, then r_e can be taken as the radius to the centre of T_b and $T_n = T_b$, otherwise $r_e = r_m$ which is the radius to the centre of T'_b and $T_n = T'_b$.

A8.2.1 Pg 80. Table. 5th column, 1st row. Amend "2.0" to: 1.0**Inner rear cover (Not essential) Delete address. Substitute:**

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Rear cover (Not essential) Delete list entirely. Substitute:

Item No.	Title	Date of Edition	Comm. No.	Price Code
IGE/TD/1 Edition 4	Steel pipelines for high pressure gas transmission	2001	1670	T14
IGE/TD/1 Edition 4 Supplement 1	Handling, transport and storage of steel pipe, bends and fittings	2001	1671	T2
IGE/TD/3 Edition 4	Steel and PE pipelines for gas distribution	2003	1677	T10
IGE/TD/3 Edition 4 Supplement 1	Handling, transport and storage of PE pipe and fittings	2003	1682	T3
IGE/TD/4 Edition 3	Gas Services	1994	1562	T3
IGE/TD/12 Edition 2	Pipework stress analysis for gas industry plant	2003	1681	T6
IGE/TD/13	Pressure regulating installations for transmission and distribution	2001	1672	TX
IGE/TD/15	Services and metering installations for a gas flow not exceeding 6 m ³ h ⁻¹ at supply MOP exceeding 75 mbar but not exceeding 2 bar	2002	1679	T3
IGE/TD/101	Adoption of pipe systems by a GT – management of UIP activities	2002	1674	TU
IGE/TD/1 Edition 4 IGE/TD/3 Edition 4 IGE/TD/12 Edition 2 IGE/TD/13	Combined Amendments	2005	-	-

END OF AMENDMENTS TO IGE/TD/12 EDITION 2.