

APPENDIX 2

Table of proposed changes to GSMR

Table 1

Regulation	Proposal
Regulation 2. Interpretation	
(1) "electricity generating station" includes an electricity generating station used for generating electricity for use on the same premises on which it is situated;	The proposal is to remove together with regulation 2(3). The historical situation which gave rise to this no longer exists.
"emergency call handling service dutyholder"	The proposal is to include a new definition of Emergency Call Handling Service Provider.
"gas processing facility" means any gas processing facility which— (a) blends or purifies gas, removes from gas any of its constituent gases or separates from gas any oil or water; and (b) is situated at a terminal which receives gas directly or indirectly from a gas production facility;	To amend to bring biomethane pipelines into the scope of the definition
(3) A network does not include pipes upstream from a junction on a pipe used exclusively for conveying gas to an electricity generating station; and in this paragraph the reference to a junction on a pipe used exclusively for conveying gas to an electricity generating station is a reference to the point where the upstream end of the pipe joins a pipe used for another purpose	To remove
(4) Where gas which does not conform with the requirements referred to in regulation 8(1) is conveyed from a gas processing facility for treatment or blending so as to bring it into conformity with those requirements, any pipes used exclusively for conveying gas from that facility to the point where the gas is treated or blended or to non-domestic premises or to both, shall not be treated as part of a network for the purposes of these Regulations.	To remove
(10) In these Regulations any reference, in relation to a network, to the network emergency co-ordinator is a reference to the network emergency co-ordinator who has prepared and had accepted a safety case relating to that network pursuant to regulation 3(2) or 10(4).	The proposal is to have regulation 2(10) to include the Emergency Call Handling Service Provider - to have prepared and had accepted a safety case.
Regulation 3. Duties on persons conveying gas	

(b) where any other person is conveying gas in that network, there is a sole network emergency co-ordinator for the network.	The proposal is for this regulation to also apply to the Emergency Call Handling Service Provider.
(2) For the purposes of these Regulations a network emergency co-ordinator is, subject to paragraph (3), a person who has prepared a safety case containing the particulars specified in Schedule 2 and has had that safety case accepted by the Executive.	The proposal is for this regulation to also apply to the Emergency Call Handling Service Provider with a reference to a new schedule.
(3) Where a network emergency co-ordinator has given written notice to the Executive and to all persons conveying gas in the network that he no longer intends to act in that capacity, he shall not be the network emergency co-ordinator for the purposes of these Regulations from the time such notice takes effect (which shall not be less than 6 months after it was given).	<p>The proposal is for this regulation to also apply to the Emergency Call Handling Service Provider.</p> <p>In the event the Emergency Call Handling Service Provider wants to relinquish that role, they must give a minimum of 2 years written notice. On the basis that this is a far more detailed and essential service.</p>
(4) Nothing in these Regulations shall prevent a person who conveys gas in a network from also being the network emergency co-ordinator	The proposal is for this regulation to also apply to the Emergency Call Handling Service Provider.
Regulation 5. Duty to conform with safety case	
<p>5.— Duty to conform with safety case</p> <p>(1) Where a person has prepared and has had accepted a safety case pursuant to these Regulations he shall ensure, so long as he conveys gas in the network to which the safety case relates or remains a network emergency co-ordinator, as the case may be, that the procedures and arrangements described in the safety case and any revision thereof are followed.</p>	The proposal is for this regulation to also apply to the Emergency Call Handling Service Provider who may not be conveying gas but who is required to provide a safety case.
Regulation 6. Co-operation	
(1) Every person to whom this paragraph applies shall co-operate so far as is necessary with a person conveying gas in a network and with a network emergency co-ordinator to enable them to comply with the provisions of these Regulations.	<p>The proposal is for the inclusion of clear co-operation duties for operators of liquefied natural gas (LNG) import facilities.</p> <p>Emergency Call Handling Service Provider to also be included in these duties.</p>

<p>(2) Paragraph (1) applies to—</p> <p>(a) a person conveying gas in the network;</p> <p>(b) an emergency service provider;</p> <p>(c) the network emergency co-ordinator in relation to a person conveying gas;</p> <p>(d) a person conveying gas in pipes which are not part of a network by virtue of regulation 2(3) or (4);</p> <p>(e) the holder of a licence issued under section 7A of the Gas Act 1986;</p> <p>(f) a person exempted under section 6A(1) of the Gas Act 1986 from paragraph (b) or (c) of section 5(1) of that Act</p>	<p>The proposal is for the inclusion of operators of liquefied natural gas (LNG) import facilities as regulation 2(3) and (4) are to be removed, and the Emergency Call Handling Service Provider to also to be included in the list.</p>
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Regulation 7. Gas escapes and investigations

<p>7.— Gas escapes and investigations</p> <p>(1) It shall be the duty of British Gas p.l.c. to provide a continuously manned telephone service (which shall be contactable within Great Britain by the use of one telephone number) for enabling persons to report an escape of gas from a network or from a gas fitting supplied with gas from a network.</p>	<p>The proposal is for the service to continue without a named entity in the form of a general duty on the industry eg Emergency Call Handling Service Provider to provide a continuously manned telephone service.</p> <p>All references to British Gas p.l.c are to be removed.</p> <p>The proposal would state that no network may operate without an Emergency Call Handling Service Provider and that there must remain only one public interface for accessing the service.</p>
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<p>(11) A person conveying gas may appoint another person to act on his behalf to prevent an escape of gas, and where he does so in advance of discovering or being notified of such an escape—</p> <p>(a) he shall notify British Gas p.l.c of the name of the person appointed;</p> <p>(b) the appointee shall in relation to the escape be responsible for complying with paragraphs (4) to (6) in substitution for the person conveying the gas, and paragraph (6) shall have effect as if the reference to the person conveying gas having reasonable cause to suspect that the gas has entered or may enter premises were a reference to the appointee having such cause.</p>	<p>The proposal is to remove the reference to British Gas p.l.c and for it to be replaced with Emergency Call Handling Service Provider.</p>
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SCHEDULE 3. CONTENT AND OTHER CHARACTERISTICS OF GAS

<p>1. The content and characteristics of the gas shall be in accordance with the values specified in the following table.</p>	<p><u>Oxygen</u> Extending the current GSMR class exemption for oxygen in biomethane to a general 1% mol oxygen limit at network pressures below 38 barg</p>
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Content or characteristic	Value	
hydrogen sulphide content	≤5 mg/m ³	<u>WN</u> Decreasing the lower Wobbe Index limit from ≥47.2 MJ/m to ≥46.5 MJ/m ³
total sulphur content (including H ₂ S)	≤50 mg/m ³	<u>ICF</u> Removal of the Incomplete Combustion Factor (ICF)
hydrogen content	≤0.1% (molar)	<u>SI</u> Removal of the Soot Index (SI).
oxygen content	≤0.2% (molar)	To add a Relative Density of ≤0.7
impurities	shall not contain solid or liquid material which may interfere with the integrity or operation of pipes or any gas appliance (within the meaning of regulation 2(1) of the 1994 Regulations) which a consumer could reasonably be expected to operate	
hydrocarbon dewpoint and water dewpoint	shall be at such levels that they do not interfere with the integrity or operation of pipes or any gas appliance (within hydrocarbon dewpoint and water dewpoint the meaning of regulation 2(1)	

	of the 1994 Regulations) which a consumer could reasonably be expected to operate	
WN	$\leq 51.41 \text{ MJ/m}^3$ and $\geq 47.20 \text{ MJ/m}^3$	
ICF	≤ 0.48	
SI	≤ 0.60	

PART II - REQUIREMENTS FOR GAS CONVEYED TO PREVENT A SUPPLY EMERGENCY

<p>1. The requirements of the gas referred to in regulation 8(2) and (4) are— (a) WN—</p> <p>(i) $\leq 52.85 \text{ MJ/m}^3$, and</p> <p>(ii) $\geq 46.50 \text{ MJ/m}^3$; and</p> <p>(b) $\text{ICF} \leq 1.49$,</p> <p>and in all other respects the gas shall conform to the requirements specified in Part I of this Schedule, as if those requirements were repeated herein.</p>	<p>Removal of ICF</p> <p>To add a Relative Density of ≤ 0.7</p>
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<p>2.—</p> <p>(1) Expressions and abbreviations used in this Part shall have the meanings assigned to them in Part III of this Schedule.</p> <p>(2) ICF and SI shall be calculated in accordance with Part III of this Schedule.</p>	<p>Removal of ICF and SI.</p>
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PART III – INTERPRETATION

<p>1. In this Schedule—</p> <p>“bar” means bars (absolute);</p> <p>“barg” means bars (gauge);</p> <p>“C” means degrees Celsius;</p> <p>“C₃H₈” means the percentage by volume of propane in the equivalent mixture;</p> <p>“equivalent mixture” means a mixture of methane, propane and nitrogen having the same characteristics as the gas being conveyed and calculated as follows—</p> <p>(i) the hydrocarbons in the gas being conveyed, other than methane and propane, are expressed as an equivalent amount of methane and propane which has the same ideal volume and the same average number of carbon atoms per molecule as the said hydrocarbons, and</p> <p>(ii) (ii) the equivalents derived from (i) above, together with an equivalent for all of the inert gases in the gas</p>	<p>Removal of ICF</p> <p>Removal of SI</p>
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<p>being conveyed, expressed as nitrogen, are normalised to 100%, such that the equivalent mixture of methane, propane and nitrogen has a Wobbe Number equal to that of the gas being conveyed;</p> <p>“ICF” means the Incomplete Combustion Factor;</p> <p>“mg/m³” means milligrams per cubic metre at 15C and 1.01325 bar;</p> <p>“MJ/m³” means megajoules per cubic metre where the calorific value of a dry gas is determined on the basis that the water produced by combustion is assumed to be condensed;</p> <p>“N₂” means the percentage by volume of nitrogen in the equivalent mixture;</p> <p>“PN” means the sum of the percentages by volume of propane and nitrogen in the equivalent mixture;</p> <p>“relative density” means the ratio of the mass of a volume of the gas when containing no water vapour to the mass (expressed in the same units) of the same volume of air containing no water vapour under the same conditions of temperature and pressure;</p> <p>“SI” means the Soot Index;</p> <p>“WN” means the Wobbe Number;</p> <p>trigonometric functions are to be evaluated in radian</p>	
<p>2. In this Schedule, ICF, SI and WN shall be calculated in accordance with the following formulae –</p> $ICF = \frac{WN - 50.73 + 0.03PN}{1.56}$ $SI = 0.896 \tan^{-1}(0.0255C_3H_8 - 0.0233N_2 + 0.617)$ $WN = \frac{\text{calorific value}}{\sqrt{\text{relative density}}}$	<p>To amend to the IGEM/GQWG proposal for simplifying the Dutton interchangeability diagram</p>