

Initial Modification Report No.21

Update to the Gas Quality Specification

11th February 2025

Please find below Initial Modification Report No.21 to the NI Network Gas Transmission Code raised by the Transporter, as required under sections A2 and A3 of the Code Modification Rules.

A Description of the nature and purpose of the modification

This proposal is being made to update references in the NI Network Gas Transmission Code to the specification for gas entering the network, to align with the most up to date legislative position including exemptions issued by the Northern Ireland Health and Safety Executive (HSE NI).

Further detail is provided in section G below.

B How the modification better facilitates the relevant objective

The Relevant Objective (condition 2.4 of the Transporter Licences) will be better facilitated by the NI Network Gas Transmission Code as a result of the proposed changes. This change will support the economic and efficient operation of the network by ensuring that the NI Network Gas Transmission Code is maintained to be as accurate and up to date as possible, and by facilitating the possibility of a wider specification of gas entering the NI Network in future.

C The clauses of the NI Network Gas Transmission Code that require amendment

This proposal will amend Appendix 3 of the NI Network Gas Transmission Code, as set out in section H below.

D Impact on the networks of the Designated Pipeline Operators, Adjacent Transporters and/or relevant agreements in respect of the NI Network:

The Transporter has considered the impacts the modification may have and concluded as follows:

Operation of the networks of the Designated Pipeline Operators (DPOs)

No Impact. The HSE NI exemption and the equivalent legislative changes in Great Britain are based on the assessment of the Health & Safety Executive in Great Britain that the wider gas specification is safe to be used in transmission pipelines.

Adjacent Transporters

The Proposed Modification will align the gas specification for Northern Ireland with that of Great Britain. Agreements with Adjacent Transporters refer to the NI Network Gas Transmission Code for the gas entry specification.

Relevant NI Agreements

Relevant NI Agreements between the NI Transmission System Operators refer to the NI Network Gas Transmission Code for the gas entry specification.

E The date proposed for implementation

The Transporter proposes that these arrangements should come into effect from the 6th April 2025, or if later, the date of approval of this Proposed Modification by the Authority.

F How to Respond

Please send responses no later than 11th March 2025 by email to:

shippercommunications@gmo-ni.com

G Further Information on the Proposed Changes

Context

The gas specification for gas entering the NI Gas Transmission Network is shown in Appendix 3 to the NI Network Gas Transmission Code and is in accordance with Schedule 3 of the Gas Safety (Management) Regulations (Northern Ireland) 1997, (**GS(M)R (NI) 97**).

The relevant Northern Ireland legislation has historically been set with reference to the equivalent GB legislation i.e.: the Gas Safety (Management) Regulations 1996 (**GS(M)R 96**).

In 2023, the GS(M)R 96 was amended by the Gas Safety (Management) (Amendment) Regulations 2023 (**GSMAR**) in order to permit a wider range of gases being delivered from the UK Continental Shelf and increased reliance on imported supplies, via interconnectors and Liquefied Natural Gas shipments, into the GB gas pipeline network. The GSMAR amended Schedule 3 of the GS(M)R 96 to:

- decrease the Wobbe Number to 46.5MJ/m³, allowing gases with lower energy to enter the GB network;
- introduce a relative density of ≤ 0.07 and remove the Incomplete Combustion Factor and Sooting Index values in schedule 3, to provide a simpler mechanism for calculating gas interchangeability;
- increase the permitted oxygen limit in gas networks from $\leq 0.2\%$ molar to 1% molar, provided it is carried in networks at up to 38 bar; and
- implement various other changes to recognise biomethane entry points and introduce a general duty to provide a continuously manned gas emergency telephone service.

These changes became effective on 6th April 2023, with the exception of the implementation of the Wobbe Number change which has an effective date of 6th April 2025.

In response, in 2023, HSE NI issued a class exemption pursuant to the GS(M)R (NI) 97 to amend the relative density and remove the Incomplete Combustion Factor and the Sooting Index.¹

It is understood that HSE NI intends that the gas specification for NI should remain aligned with the GS(M)R 96 (as amended by GSMAR). However, changes to the NI legislation in respect of the Wobbe Number have not yet been implemented. Accordingly, the NI Gas Network Operators have applied for and have been issued a further class exemption.

The details of which can be found on the [HSE NI website](#).

NI Network Gas Transmission Code Implications

Hypothetically, not updating the NI Network Gas Transmission Code could lead to a breach, or to the need to request the Northern Ireland Network Emergency Coordinator (NINEC) to approve emergency specification gas, depending on the Wobbe Number of gas being imported from Great Britain.

The Transporters consider that it is important that the NI Network Gas Transmission Code aligns with the specification of gas applicable in Great Britain and should reflect the most up to date specification approved by HSENI, with effect from the 6th April 2025.

¹ The 2023 increase in the oxygen limit to 1% molar in pipelines up to 38 bar is relevant to the Distribution Networks but is not relevant for the NI Network Gas Transmission Code since the transmission pipelines operate above 38 bar.

Specific Changes Proposed

Appendix 3 of the NI Network Gas Transmission Code currently refers to Schedule 3 in the GS(M)R (NI) 97 legislation as the binding specification and presents the relevant details for information purposes.

The Proposed Modification:

- ensures that the reference to the legislation includes reference to the exemptions at the top of the main table; and
- presents the effect of those exemptions for information in additional tables below.

Section H: Proposed Code Text

Amend Appendix 3 to read as follows:

APPENDIX 3

GAS SPECIFICATION

The content and characteristics of gas to be entered or offtaken from the NI Network shall be in accordance with Schedule 3 of the Gas Safety (Management) Regulations (Northern Ireland) 1997 (as may be amended, supplemented or replaced from time to time) and the current requirements are shown below for information.

Content or Characteristic	Value
Hydrogen sulphide (H ₂ S) content	≤5 mg/m ³
Total sulphur content (including H ₂ S)	≤50 mg/m ³
Hydrogen content	≤0.1% (molar)
Oxygen content	≤0.2% (molar)
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 1997 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 the meaning of regulation 2(1) of the 1997 Regulations) which a consumer could reasonably be expected to operate
Wobbe Number (WN)	(i) ≤51.41 MJ/m ³ , and (ii) ≥ 47.20 MJ/m³ <u>lower limit amended by Certificate of Exemption No.2 of 2025 (see Exemption Table 2 below)</u>
Incomplete Combustion Factor (ICF)	≤0.48 <u>removed by Certificate of Exemption No.1 of 2023 and replaced with a relative density measure (see Exemption Table 1 below)</u>
Sooting Index (SI)	≤0.60 <u>removed by Certificate of Exemption No.1 of 2023 and replaced with a relative density measure (see Exemption Table 1 below)</u>

Source: Gas Safety (Management) Regulations (Northern Ireland) 1997, Schedule 3, Part I

Exemption Table 1

<u>Relative Density</u>	<u>≤ 0.7</u>
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Exemption Table 2

<u>Wobbe Number (WN) Lower Limit</u>	<u>≥ 46.5 MJ/m³</u>
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