

GS(M)R Review:
Gas Quality Specification Changes

Transmission Workgroup 6th April 2023



The GS(M)R Review

In Q1 2022, HSE consulted on changes to the Gas Safety (Management) Regulations 1996 (legislation.gov.uk) (GS(M)R)

In relation to gas quality, the following amendments to the UK specification were consulted on:

- Reduction of the lower limit for Wobbe Index from 47.2 MJ/m³ to 46.5 MJ/m³
- Replacement of the Incomplete Combustion Factor (ICF) and Soot Index (SI) parameters with a Relative Density (RD) limit of 0.7
- Increase to the upper limit for oxygen content from 0.2mol% to 1.0mol% on below 38 bar systems

STATUTORY INSTRUMENTS

1996 No. 551

HEALTH AND SAFETY

Gas Safety (Management) Regulations 1996

4th March 1996

All regulations except

1st April 1996 Regulation 8

31st October 1996

8th March 1996

HSE Conclusions

- On 10th March 2023, HSE published its <u>Consultation Response and Impact</u> Assessment
- Subject to no objections being raised during parliamentary procedure, these changes to the gas quality specification will be included within
 - The Gas Safety (Management) (Amendment) Regulations 2023 (legislation.gov.uk)
 - The Gas Safety (Management) (Amendment) (No. 2) Regulations 2023 (legislation.gov.uk)
 - The replacement of ICF and SI with RD will be effective from 6th April 2023
 - The reduction in the lower limit for Wobbe Index will be effective from 6th April 2025

Implementation of ICF/SI/RD Change: Operational Matters

- On 13th March 2023, we wrote to UNC shippers, GDNs, entry terminals, storage and interconnector operators to communicate these changes and our proposed approach to implementation
- From 6th April 2023, we shall monitor compliance of gas entering the NTS in accordance with the RD limit instead of ICF and SI
- RD is already measured and telemetered at NTS entry points, therefore no action is required by operators before entry into force
- NGT will implement the necessary operational alarms to monitor compliance
- At some entry points it may be desirable to extend the telemetry range for RD; we will follow up on this with the relevant operators



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To: UNC Shippers, GDNs, NTS Entry, Interconnector and Storage Operators

13 March 2023

Gas Quality Changes: Review of the Gas Safety (Management) Regulations 1996 (GS(M)R)

Dear Colleague

On 10 March 2023, the Health and Safety Executive published its response to its consultation held in 2022 on proposals to amend certain provisions in the GS(M)R. Subject to parliamentary approval, the following changes to the UK gas quality specification will enter into force on 6th April 2023*:

- Removal of the Incomplete Combustion Factor (ICF) parameter
- Removal of the Soot Index parameter
- Introduction of a new parameter of Relative Density with a limit of 0.7.

Therefore, with effect from 6th April 2023 ('Day 1'), we plan to start monitoring gas quality compliance at all points at which gas enters the NTS based on the Relative Density parameter instead of ICF and Soot Index. The purpose of this letter is to explain our proposed approach to implementation of these changes and how they will take effect from a legal perspective.

Removal of ICF and Soot Index Parameters

For points at which NGT measures the gas quality, it will not be feasible to remove ICF and Soot Index measurements from the measurement systems before Day 1; this will be carried out as and when works are scheduled on these systems in the future. Rather, from Day 1, we propose to disable the operational alarms in respect of these two parameters within our SCADA system which act as the trigger for our operational staff to invoke Transportation Flow Advice (TFA) procedures for out-of-specification gas. This will ensure that we do not take any action to curtail gas flows

 $^{^{1}}$ HSE has also announced that a reduction to the lower limit for Wobbe Index in GS(M)R from 47.2 MJ/m 4 to 46.5 MJ/m 3 will apply from 6 10 April 2025, in respect of which we will be engaging with industry separately and is outside the scope of this letter.

Implementation of ICF/SI/RD Change: Commercial / Contractual Matters

- Where a gas quality limit change is required to be implemented due to a change in law, UNC provides that each operational agreement (NEA, SCA, IA) shall be deemed to incorporate that change from its entry in force
- For ICF, SI and RD, this will take effect from 6th April 2023
- We will seek to execute the relevant contractual changes with operators in the coming months; a UNC consultation process is not required

Implementation of Wobbe Index change

- A reduction in the Wobbe Index lower limit at NTS entry points will be voluntary based on those sites that wish to do so and subject to a UNC consultation process
- As previously communicated at the <u>September 2022 Transmission Workgroup</u> the NTS entry terminals that have indicated a wish to do so are:
 - Bacton (Perenco)
 - Barrow (Spirit Energy)
 - Teesside (Px)
 - St Fergus (NSMP)
 - Grain LNG
 - Somerset Farm (aka Murrow) biomethane
- We will be re-confirming the position with these operators
- We propose to raise one UNC Modification to enable contractual changes for all these sites

Focus on Bacton

- Interconnector and BBL currently have Wobbe Index lower limits that are equivalent to 47.2 MJ/m³ for both NTS exit and NTS entry
- A reduction in Perenco's lower limit for Wobbe Index could result in the specification of gas offtaken by the interconnectors being below this value when operating in export mode
- Therefore, our current view is that a reduction in the Wobbe Index specification between Interconnector and Fluxys and between BBL and GTS are pre-requisites for reductions in the interconnectors' specification with NGT at Bacton
- Further engagement is needed with Interconnector, BBL and EU TSOs to establish the feasibility of making these changes
- We propose to conduct this engagement and seek agreement in principle with these TSOs before raising the UNC Modification

Transparency Considerations

- The Workgroup previously requested an enhanced and ongoing level of transparency from NTS entry points that adopt a wider Wobbe range, showing expected future delivery volumes and specification
- This could potentially feed into periodic updates to NGT's <u>network penetration analysis</u> that was completed last year, indicating areas of the network where lower Wobbe gas might be prevalent
- This could inform risk assessments by exit points that are sensitive to changes in Wobbe Index and inform decisions about whether to invest in adaptations to plant
- The conclusions of last year's analysis showed that
 - Only Barrow is currently expected to deliver gas below 47.2 MJ/m³ in steady state operation
 - The other entry points expect to deliver gas below this Wobbe value either during start-up/shut-down or when higher Wobbe fields are on outage which are less predictable
 - We would expect any low wobbe gas delivered at Bacton and St Fergus to be blended to be above 47.2 MJ/m³ by other supplies at those locations prior to NTS entry on most days
- We would welcome the Workgroup's views on the approach to implementation of the Wobbe Index change



