UNC Modification	At what stage is this document in the process?

UNC 0XXX:

(Code Administrator to issue reference)

Reverse Compression

01 Modification
02 Workgroup Report
03 Draft Modification Report
04 Final Modification Report

Purpose of Modification:

Clarification that reverse compression, with zero net flow into or out of the network, is not to be classified as an entry and exit point.

Next Steps:

The Proposer recommends that this Modification should be: *(delete as appropriate)*

- subject to Self-Governance
- assessed by a Workgroup

This Modification will be presented by the Proposer to the Panel on dd Month 202y *(Code Administrator to provide date)*. The Panel will consider the Proposer's recommendation and determine the appropriate route.

Please consider providing a presentation to introduce the Modification to the UNC Modification Panel which should be sent with your Modification to the Joint Office (a suggested template is available at: https://www.gasgovernance.co.uk/unc/templates)

Impacted Parties:

High: Some Distributed Gas Producers, Compression service developers.

Low: Distribution Network Operators

None:

Impacted Codes:

None

Contents

Timetable

Please provide proposer contacts and an indicative timeline. The Code Administrator will update the contents and provide any additional Specific Code Contacts.

Modification timetable: *(amend as appropriate)*

Pre-Modification Discussed	dd month year
Date Modification Raised	dd month year
New Modification to be considered by Panel	dd month year
First Workgroup Meeting	dd month year
Workgroup Report to be presented to Panel	dd month year
Draft Modification Report issued for consultation	dd month year
Consultation Close-out for representations	dd month year
Final Modification Report available for Panel	dd month year
Modification Panel decision	dd month year

Any questions?

Contact:
Joint Office of Gas Transporters

enquiries@gasgovernance.co.uk

0121 288 2107

Proposer:
Tim Davis
Barrow Shipping

tdavis@barrowshipping.co.uk

+447768456604

Transporter:
Insert name and Organisation

email address

telephone

Systems Provider:
Xoserve

UKLink@xoserve.com

Other:
Insert name

email address

telephone

1 Summary

What

The Code is silent on embedded “Reverse Compression”. Clarity is needed that any reverse compression, with net zero flow, should not be regarded as creating a network entry and exit (meter) point.

Why

Compressors can be used to move gas from a lower to higher pressure tier pipeline. If this is done by a DN, this would be regarded as part of network operation. The installation of compressors does not, however, have to be undertaken as a regulated activity. If carried out by a third party, the movement between tiers could be regarded as an exit and entry point, even though the flow leaving the lower pressure network is identical to the flow entering the higher pressure one (with plant being designed to ensure no losses/venting). Whether a DNO or third party installs such a Reverse Compression plant the physical flows would be identical and this modification seeks to ensure a level playing field, avoiding a potential requirement to install entry and exit meters and apply transportation charges that would not arise oif the plant were installed by a DNO.

How

UNC amendment to clearly provide that third party installation of reverse compression shall not lead to either an entry nor exit meter point being created (or confirmation that this is the case with no UNC change being necessary).

2 Governance

Justification for [Fast Track] Self-Governance, Authority Direction or Urgency

If it is accepted that reverse compression does not require exit and entry points to be created, then as a clarifying modification, implementation is unlikely to have a material impact on any party and self-governance is appropriate.

There is concern that high gas prices will mean a significant number of biomethane plants may not have capacity to inject gas in summer 2022 due to lower gas demand which reduces capacity in the low pressure tiers (biomethane flow of X scmh into a 2 bar or 7 bar pipeline is only possible if the flow leaving such pipeline is >X scmh).

A number of projects to install reverse compression are being actively pursued with an intention of being operational in Summer 2022. Early clarification would be required if the DNs concerned were to conclude that an exit and entry point is being created. The consequences of such a conclusion on project costs and timing may mean that urgent procedures will be requested.

Requested Next Steps

This Modification should:

- be considered a non-material change and subject to Self-Governance.

- be assessed by a Workgroup.
- proceed to Consultation.
- be treated as urgent and should proceed as such under a timetable agreed with the Authority.

3 Why Change?

The injection of distributed gas is growing. As at the end of March 2022, 126 DN entry points were registered on Gemini.

BGG understands that around 15 existing biomethane projects flare gas from time to time because of network capacity constraints. We have seen an estimate that suggests around half of the currently identified potential new biomethane sites face local grid capacity constraints and, as a result, are unlikely to be developed. This will be exacerbated by very high gas prices that are expected to reduce gas demand in summer 2022 with a consequence being additional flaring due to the capacity reduction.

Constraints typically arise in the summer months when demand is low. However, it is technically possible to export gas from one pipeline pressure tier (e.g. Medium pressure) to a higher one (e.g. Intermediate Pressure). This increases the ability of a network to accept gas, with higher pressure tiers able to more easily accommodate additional gas.

The ability of Reverse Compression to increase the capacity available to accommodate distributed gas is established in Europe with over 30 projects in France. Cadent are completing the first such project in GB at a site near Doncaster funded by Ofgem NIC. All the DNs are proposing to offer reverse compression within their networks as an option and discussions are underway in an Entry connections forum. Distributed gas producers, however, are interested in arranging this for themselves, and a number of such projects are being actively pursued.

If a DN includes reverse compression within its network, this would not constitute an entry nor exit (meter) point but simply be part of the network. If a third party were to build an identical facility to transfer gas between two pipeline pressure tiers, BGG believes the UNC is silent on how this should be treated. As such, it may be argued that the gas passing through the compressor should be treated as having created both an entry and exit (meter) point. Equally, it may be argued that in the absence of any specific Code terms, the compressor should be treated as part of the network, thereby delivering the same treatment as would apply if the DN implemented an identical arrangement.

To remove any scope for doubt, and to avoid imposing significant costs on third party developments that would not apply were a DN to undertake the same development, clarity in the Code would be beneficial.

4 Code Specific Matters

Reference Documents

UNC

Knowledge/Skills

Understanding of meter point rules and distributed gas entry requirements.

5 Solution

It is proposed that the Code be modified to clarify that reverse compression - a physical arrangement that moves gas from one pressure tier to another within a distribution network with no anticipated net flow into or out of the DN– shall not create either an entry nor exit (meter) point.

6 Impacts & Other Considerations

Does this Modification impact a Significant Code Review (SCR) or other significant industry change projects, if so, how?

No.

Consumer Impacts

Reduced biomethane flaring is positive through environmental benefits. Increasing biomethane supply theoretically lowers consumer prices (higher supply and unchanged demand puts downward pressure on prices), but the limited scale means any impact would be minimal.

What is the current consumer experience and what would the new consumer experience be?

No change.

Impact of the change on Consumer Benefit Areas:

Area	Identified impact
Improved safety and reliability No change.	None
Lower bills than would otherwise be the case Theoretical benefit but too small to be realised in practice.	Positive
Reduced environmental damage Reducing biomethane flaring has clear environmental benefits. Reverse compression will also facilitate additional distributed entry that owudl otherwise not be developed due to network capacity constraints.	Positive
Improved quality of service No change	None
Benefits for society as a whole Small employment opportunities would be created through the development and installation of compressors.	Positive

Cross-Code Impacts

None.

EU Code Impacts

None.

Central Systems Impacts

No impact.

7 Relevant Objectives

Impact of the Modification on the Transporters' Relevant Objectives:

Relevant Objective	Identified impact
a) Efficient and economic operation of the pipe-line system.	None
b) Coordinated, efficient and economic operation of (i) the combined pipe-line system, and/ or (ii) the pipe-line system of one or more other relevant gas transporters.	Positive
c) Efficient discharge of the licensee's obligations.	Positive
d) Securing of effective competition: (i) between relevant shippers; (ii) between relevant suppliers; and/or (iii) between DN operators (who have entered into transportation arrangements with other relevant gas transporters) and relevant shippers.	Positive
e) Provision of reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security standards… are satisfied as respects the availability of gas to their domestic customers.	None
f) Promotion of efficiency in the implementation and administration of the Code.	None
g) Compliance with the Regulation and any relevant legally binding decisions of the European Commission and/or the Agency for the Co-operation of Energy Regulators.	None

Implementation of this modification would reduce the costs to third parties of developing schemes to provide compression that moves gas between pressure tiers, creating a level playing field with the requirements were the incumbent DN to implement the same solution. The third party would not, for example, be expected to pay LDZ transportation charges associated with each of the positive and negative elements of a zero net flow arrangement. Implementation would therefore increase the likelihood of schemes being implemented that alleviate capacity constraints and allow increased volumes of distributed gas to be injected. This would facilitate:

Efficient and economic operation of the pipeline system through the existence of reverse compression that may not otherwise be installed, increasing the options available to a network operator.

Efficient discharge of the licensee's obligations by ensuring a level playing field between DN and third party compression schemes, avoiding any suggestion of undue discrimination.

Securing of effective competition between relevant shippers and between relevant suppliers by allowing injection of distributed gas that may otherwise be flared, with increased supply available to the market when it is economic to inject.

8 Implementation

No implementation costs are envisaged as a result of this modification.

As Self-Governance procedures are proposed, implementation could be sixteen business days after a Modification Panel decision to implement, subject to no Appeal being raised.

9 Legal Text

Text Commentary

To be provided by the relevant Transporter.

Text

To be provided by the relevant Transporter.

10 Recommendations

Proposer's Recommendation to Panel

Panel is asked to:

- Agree that Self-Governance procedures should apply.
- Refer this proposal to a Workgroup for assessment.