

**UNC Workgroup 0581S Minutes
Amending the Oxygen content limit specified in the Network
Entry Agreements at Grain LNG**

Thursday 02 June 2016

Elxon, 350 Euston Road, London NW1 3AW

Attendees

Les Jenkins (Chair)	(LJ)	Joint Office
Lorna Dupont (Secretary)	(LD)	Joint Office
Andrew Pearce	(AP)	BP Gas
Colette Baldwin	(CB)	E.ON
Colin Hamilton	(CH)	National Grid NTS
Craig Dean	(CD)	National Grid LNG
David Reilly	(DR)	Ofgem
Fergus Healy	(FH)	National Grid NTS
Gerry Hoggan	(GH)	ScottishPower Energy Management
Graham Dickson	(GDi)	Interconnector UK
Graham Jack	(GJ)	Centrica
Hilary Chapman*	(HC)	Scotia Gas Networks
Jeff Chandler	(JC)	SSE
Julie Cox	(JCx)	Energy UK
Kirsten Elliott-Smith	(KES)	Cornwall Energy
Lucy Manning	(LM)	Gazprom
Mark Johnson	(MJ)	National Grid LNG
Matt Gamage*	(MG)	EDF Energy
Natasha Ranatunga	(NR)	EDF Energy
Nick Wye	(NW)	Waters Wye Associates
Phil Hayward	(PHa)	Opus Energy
Phillip Hobbins	(PH)	National Grid NTS
Richard Fairholme	(RF)	Uniper
Roddy Monroe	(RM)	Centrica Storage
Sinead Obeng*	(SO)	South Hook Gas
Steve Nunnington	(SN)	Xoserve
Yousef Al-Ali*	(YA)	South Hook Gas

*via teleconference

Copies of all papers are available at: <http://www.gasgovernance.co.uk/0581/020616>

The Workgroup Report is due to be presented at the UNC Modification Panel on 15 September 2016.

1.0 Introduction

Following pre-modification discussions at the April Transmission Workgroup it was believed that Workgroup assessment of this proposal was unnecessary and the April UNC Modification Panel subsequently issued it direct to consultation. Eleven representations were received and a Final Modification Report produced.

2.0 Referral from May Modification Panel

In its appraisal of the Final Modification Report at its meeting on 19 May 2016, the UNC Modification Panel considered that new issues had been identified by various parties through the consultation process and that this modification should now be assessed by a Workgroup and a formal Workgroup Report provided, prior to any further decision on progress.

The key issues arising from the consultation were identified by LJ as:

1. Penetration of higher-O₂ gas from Grain into the NTS
2. Potentially a move from Nitrogen ballasting to air ballasting at Grain, leading to;
 - a. A potential continuous stream of c. 200ppm O₂ gas from Grain
 - b. Lower operating costs at Grain, offset by higher costs elsewhere
3. Potential for additional corrosion within connected systems, because;
 - a. Water and CO₂ can be produced at bed regeneration temperatures in molecular sieve type dehydration systems leading to production of Carbonic acid within brined salt caverns and wet gas systems
4. Consequential investment at storage sites
 - a. A more expensive molecular sieve may be required
5. Potential formation of elemental sulphur that might block Coalescer filters
6. National Grid Storage Connection Agreements may need to be amended as a consequence.

In finalising the list with input from participants, LJ confirmed that these were the only issues that were in scope for the Workgroup. Responding to questions, LJ also confirmed that this modification (and its eventual outcome) did not confer rights in respect of oxygen levels at any other entry point. Network Entry Agreements (NEAs) vary across the country, and each entry point is considered on its own merits.

2.1 Consider issues raised in consultation responses and provide views on their materiality

LJ directed attention to the points raised in the consultation, which were then reviewed and clarified in more detail.

It was questioned if the issues were just local to the Isle of Grain entry point. Noting that details of the flows have not been seen, JCh observed that oxygen related flows might impact the system and storage sites in the summer months. It was questioned how far did gas from Grain penetrate into the surrounding network; PH and HC affirmed that no work had been done on this. GJ noted that it only affects a wet gas system and there was no point in doing any analysis if National Grid and Scotia Gas had dry systems. Was storage a dry or wet system?

Referring to the Isle of Grain facilities, MJ explained about potential cargoes arriving from new markets, which might result in the networks experiencing short periods of higher oxygen levels on certain days; under the current levels any such cargoes are excluded from entry. It was suggested that MJ and CD could produce analysis of the likelihood/frequency of actual deliveries reaching 200ppm, and provide views regarding the perceived impacts (positive and negative) on the Isle of Grain and its wider surrounds for inclusion in the report.

Action 0601: *Isle of Grain Entry Point* - National Grid LNG (MJ and CD) to produce analysis of the likelihood/frequency of actual deliveries reaching 200ppm, and provide views regarding the perceived impacts (positive and negative) on the wider surrounds for inclusion in the report.

GJ asked which storage facilities were currently operating below this level and at GM(S)R limits; the geography needed to be narrowed down to understand what is able to cope with limits above that suggested under this modification; it was his understanding that in 2004 at least four facilities were all operating at higher levels.

CB believed that a better understanding of the materiality was required; was it to be assumed there would not be a continuous stream of higher level gas? Were the impacts to be seasonal, or a small percentage increase to be expected every day? What was the anticipated frequency? There might be concerns that what was initially extraordinary practice, might come to be accepted as the normal practice. FH pointed out that this modification was proposing changes to the contract, not the UNC.

It was suggested that Transporters should carry out assessments to understand the farthest points where gas with increased oxygen levels (low, medium and high flows) might reach, i.e. a 'heat map' to show how this propagates through the networks.

Action 0602: Transporters (National Grid NTS and Scotia Gas Networks) to carry out assessments to establish the farthest points where gas with increased oxygen levels (low, medium and high flows) might reach, i.e. a 'heat map' to show how this propagates through the networks.

It was suggested that Storage Operators should be encouraged to prepare evidence regarding perceived impacts in the event that higher level gas may infiltrate their sites/systems, should the assessments by the Transporters and Grain indicate a far reaching penetration and material impact.

GJ asked, when Storage Operators look to develop a new facility to what extent do they allow for increases in oxygen content?

Noting that the parameters of an NEA were only discussed by the Transporter and the deliverer of the gas (and not industry), NW questioned why it was permissible to agree a new NEA with higher levels within the GS(M)R, and yet an existing 'old' NEA must go through this UNC modification process to achieve any revisions to limits. It was explained that the UNC process provides transparency and a more convenient route to communicate to all parties that may be affected by the proposed changes (there may be a number of contracted parties for each NEA).

NR referred to information provided within the Ten Year Statement 2015 (TYS) and drew attention to the details in Appendix 2, Table A2.12) <http://www2.nationalgrid.com/UK/Industry-information/Future-of-Energy/Gas-Ten-Year-Statement/>. PH explained the indicative specifications and what happens when a new party approaches National Grid to discuss the connection to a new entry point. The upstream party is not a signatory to UNC. The Shipper has to deliver compliant gas to the system and this is defined; gas quality parameters are discussed. NW observed that the Transporter must carry out its own internal assessments/tests to establish permissible limits, and asked why these assessments/tests could equally be carried out to verify whether any increase in limits was acceptable. Would not that analysis answer these questions? PH explained how NEAs fit with UNC and the contractual chain to shippers and believed the concept of such a 'test' was misleading as National Grid NTS works with new parties to see what is possible.

JCx sought clarification of the scope of GS(M)R; must the Transporter only accept gas that is within those tolerances. PH explained the obligations that rested on all Transporters that they should not convey gas that exceeds the limits set down; tighter parameters can be agreed where appropriate. NW reiterated that rather than have to go through this each time a change is proposed, National Grid NTS must have in place internally assessments that can be called upon to use as a template for these sorts of modifications. Could having to go through this 'change' process be discriminating between new and existing entry points? NR observed that GS(M)R was focused on safe transportation of gas and protection for end consumers.

Assuming there is a test and it can be performed, what is it and can it be applied here, and what would it mean? Another question might be to consider how end users are affected by the increased levels, however this was not raised in the consultation, and may be considered to fall outside of the remit directed by the UNC Modification Panel.

3.0 Next Steps

LJ summarised that the first questions to consider/answer were about materiality; the degree of penetration of the gas containing a higher oxygen level and the likelihood/frequency of any occurrence, this could then be followed by consideration of any consequential impacts.

A copy of the draft Workgroup Report will be published for information, and this will be updated with any new information and republished after each meeting.

It was suggested that, prior to the next meeting, all parties should consider the key issues arising from the consultation and provide views/further comments for inclusion in the draft Workgroup Report. The Joint Office will add all information received to the draft Workgroup Report and republish it ready for consideration and further discussion at the July meeting.

Action 0603: All parties to consider the key issues arising from the consultation and provide views/further comments to the Joint Office (as soon as possible) for inclusion in the draft Workgroup Report.

Development of the Workgroup Report will be continued at the next meeting.

4.0 Diary Planning

Further details of planned meetings are available at: www.gasgovernance.co.uk/Diary

Workgroup meetings will take place as follows:

Time/Date	Venue	Workgroup Programme
Thursday 07 July 2016	Elexon, 350 Euston Road, London NW1 3AW	Development of Report
Thursday 04 August 2016	Elexon, 350 Euston Road, London NW1 3AW	<i>Development of Report</i>
Thursday 01 September 2016	Elexon, 350 Euston Road, London NW1 3AW	<i>Completion of Report</i>

Action Table (02 June 2016)

Action Ref	Meeting Date	Minute Ref	Action	Owner	Status Update
0601	02/06/16	2.1	Isle of Grain Entry Point - MJ and CD to produce analysis of the likelihood/frequency of actual deliveries reaching 200ppm, and provide views regarding the perceived impacts (positive and negative)	National Grid LNG (MJ/CD)	As soon as possible Pending

Action Table (02 June 2016)

Action Ref	Meeting Date	Minute Ref	Action	Owner	Status Update
			on the wider surrounds for inclusion in the report.		
0602	02/06/16	2.1	Transporters (National Grid NTS and Scotia Gas Networks) to carry out assessments to establish the farthest points where gas with increased oxygen levels (low, medium and high flows) might reach, i.e. a 'heat map' to show how this propagates through the networks.	National Grid NTS (PH) and Scotia gas Networks (HC)	<i>As soon as possible</i> Pending
0603	02/06/16	3.0	All parties to consider the key issues arising from the consultation and provide views/further comments to the Joint Office (as soon as possible) for inclusion in the draft Workgroup Report.	ALL Parties	<i>As soon as possible</i> Pending