

UNC Workgroups 0498/0502 Minutes
Amendment to Gas Quality NTS Entry Specification at BP
Teesside System Entry Point
Monday 10 November 2014
ENA, Dean Bradley House, 52 Horseferry Road, London SW1P 2AF

Attendees

Les Jenkins (Chair)	(LJ)	Joint Office
Ian Hollington (Secretary)	(IH)	Joint Office
Alice Mitchell	(AM)	Ofgem
Andrew Pearce	(AP)	BP Gas
Andy Heppel	(AH)	TGPP
Anna Grant*	(AG)	Total
Antony Miller*	(AMi)	Centrica Storage
Charles Ruffell	(CR)	RWEst
Daniela Protas	(DP)	DECC
David O'Donnell	(DO)	TGPP
David Reilly	(DRe)	Ofgem
Dennis Rachwal	(DRa)	National Grid NTS
Graham Jack	(GJ)	Centrica
Jeff Chandler*	(JCh)	SSE
Julie Cox	(JCx)	Energy UK
Marshall Hall	(MH)	Oil and Gas UK
Murray Kirkpatrick	(MK)	BP
Natasha Ranatunga	(NR)	EDF Energy
Richard Fairholme*	(RF)	E.ON

*via teleconference

Copies of papers are available at: www.gasgovernance.co.uk/0498/101114

Modification 0498 - Amendment to Gas Quality NTS Entry Specification at BP Teesside System Entry Point

Modification 0502 - Amendment to Gas Quality NTS Entry Specification at the px Teesside System Entry Point

The Workgroup Report (combined 0498 and 0502) is due to be presented at the UNC Modification Panel by 21 May 2015.

1.0 Introduction

LJ introduced those present and explained that due to the complexity of this Modification it had been decided continue development on a stand-alone basis.

2.0 Review of Minutes and Actions

2.1 Minutes

DRa requested that Matt Bacon of DECC be added to the list of attendees at the meeting held on 02 October. On the basis of this amendment being made the minutes from the previous meeting were approved and will be republished accordingly.

2.2 Actions

0803: *Variability Data for major entry/exit points:* All parties to review the UNCORM Data Dictionary (<http://www.gasgovernance.co.uk/tpddocs>) and other recognised data sources, and assess and report on the capability of providing sufficiently current and accurate data to inform Workgroup views.

Update: All parties agreed to continue to monitor these data sources and it was agreed that this action could be closed. **Closed.**

0804: *Assessment of Environmental Impacts* - For each Modification, the Proposers to review and consider providing appropriate information to meet the requirements necessary under the UNC.

Update: This item was included in the presentations given at today's meeting and it was agreed that this action could be closed. **Closed.**

0807: *'Rate of change' issues for operating equipment* - Consider providing examples or information where this sort of problem had been experienced/encountered before.

Update: JCh advised that the data logging equipment overwrites recordings and so historical data showing when plant has tripped out is not available. He advised that going forward this data is being recorded and stored. LJ opened this up to the other participants and asked if they could provide any similar evidence. NR advised that she may be able to provide this but was still discussing the matter within EdF and GJ agreed discuss the request with his colleagues to see what was available from Centrica. **Carried Forward.**

0808: *CATS and TGPP infrastructure* – Provide revised schematic to confirm how facilities will be configured, what will be upgraded and likely combined costs.

Update: AH agreed to discuss this with MK and respond at the next meeting. **Carried forward.**

0809: *Offshore Development Opportunities* – Proposers to describe what these are and their timings, and the potential forecast variations in CO₂, and then assess the potential effects on Teesside gas entry quality. (BP also to confirm if the forecast information is the most up-to-date.)

Update: This item is to be closed (duplicate). Members are referred to action 1002. **Closed.**

0810: *ETS and venting of CO₂ emissions* – Proposers to confirm what is included/excluded and how dealt with.

Update: It was agreed that this is covered by the impact assessment. **Closed.**

0901: **National Grid NTS (RH) to write to Terminal Operators and request they provide 13 months of CO₂ data (entry and exit) for the following sub terminals: Bacton, Easington, St Fergus, Barrow and Theddlethorpe and also the 2 sub terminals from BP directly to the workgroup**

Update: DRa advised that he has an update on this action to be discussed in today's meeting. **Closed.**

1001: AH, AM, AP and DRa to provide an analysis of examples of high variations in CO₂ levels to include: the demand on that day: the hourly average and its effect on the system: the frequency of this occurrence: where the affected exit points were located.

Update: DRa advised that he will be discussing a slide on this topic at today's meeting. **Closed.**

1002: MB to advise if any information on the development of proposed new gas fields has been published and to provide this to the workgroup if available.

Update: DP advised that she has information on this topic in a presentation she will be giving in today's meeting. **Closed.**

1003: AH to discuss with DECC how the organisations involved can be encouraged to participate in order to improve the levels of response to the requests for information.

Update: AH noted that this action has been superseded. **Closed.**

3.0 Introduction to the Workgroup Report

LJ introduced the Draft Workgroup Report explaining that he believed it would help set the scene and focus workgroup activity. He continued by outlining the Modification process and the requirement to demonstrate a positive effect on the Relevant Objectives.

LJ then discussed the two Modifications in question, which he noted proposed two changes but, at the request of Panel, are to be incorporated into one report. He went through the Summary, Why Change? and Solution sections, focusing on what was expected in Relevant Objectives in terms of evidencing the impacts of the proposals.

LJ noted that the four Relevant Objectives that are impacted by this proposal are (a), (b), (d) and (e).

MH asked about the difference between the terms "combined pipeline" and "pipeline system" and LJ replied that the combined pipeline means the whole of the pipeline network and the pipeline system means the pipeline in one network operators' system.

LJ asked if anyone felt any other Relevant Objectives were affected. In response to a question about whether (d) was relevant and LJ replied that it may not be totally, but asked for it to remain under consideration.

LJ advised that he would make the Draft Workgroup Report available and asked the participants to review it and provide the workgroup with feedback.

LJ then discussed the Assessment of Risks, a piece of work provided by National Grid NTS. All agreed to look at the view presented by DRa in the document and provide their thoughts. This assessment enabled identification of relevant NTS offtakes and initial engagement with the parties connected to the NTS, some of whom have since submitted initial representations. These are to be considered further by the workgroup during the assessment process. The following sub-sections brought out the five key themes that had been identified by workgroup members to date and that were reflected in the agenda. This is where the majority of analysis would be included.

LJ asked the meeting for their first impressions and the general feeling was that the draft document covered all of the main points that needed to be addressed. He advised that the Proposal's reporting date had already been extended to 21 May 2015 which in his view was achievable. GJ asked about the identification of critical milestones in order to help meet the overall timescale and this was discussed. Generally the group felt that although

May was acceptable, an earlier completion would be preferred if possible as there was no desire to see a continuation beyond the reporting date. MK and AH agreed that this date also worked for them but that further delays would cause problems for their organisations.

4.0 Key themes for inclusion in the Workgroup Report

4.1 CO₂ variability/high absolute values and its effect on exit points.

DRa discussed the background and data received from the terminal operators and thanked everyone for their cooperation. He advised that the operators of Theddlethorpe had given permission for their data to be used if required and like some others the information should only be used in aggregate form. He gave an overview from the presentation outlining examples of unusual days which involved Teeside, Hatton and Rough with one instance where an 0.2% increase seen for approximately one hour at Teeside was subsequently evidenced at Rough but not at Hatton.

AMi noted that there was a correlation between high variations in CO₂ levels and increased safety and pipeline maintenance work and that on that day, Rough was injecting heavily at approximately 23 to 25 metres. He asked about the CO₂ levels at Easington then, and was advised that they were very low.

MH noted that information on variations within the day would be required rather than just daily data and GJ said that the Wobbe is vulnerable to variability with MH agreeing that variability of exit gas, prevailing levels of CO₂ together with the variability of imported gas and gas from storage also needed consideration. AMi commented that aggregate levels of CO₂ is the main issue for Centrica as it causes corrosion and subsequently an increase in inspection work. He continued to express concern about the risk of gas with increased CO₂ levels from other terminals being injected into Rough, in particular from Teeside which he believes has a correlation with Rough.

The workgroup continued to discuss the data with JCx commenting that this example of an unusual day needs further investigation. In reply to a question from AMi GJ replied that the risk to entry conditions was low with AP noting that the levels shown reduce over the course of the day.

The data from Rough was considered with AMi advising that it was hourly. MH commented that consistency of data would be needed in order for the analysis to be completed in a meaningful way. The discussion moved on to the NTS daily average of CO₂ levels from Teeside which AH thought was important as gas was blended offshore and if Jackdaw was the only field flowing, which would be rare, this would be the only way that Rough could experience a blip. He highlighted its importance due to the amount of carbon steel equipment in use saying that the number of days where CO₂ levels were high would be very few.

LJ summed up this discussion noting that the number of variables made it difficult to come to a set view although the number of days with high levels is likely to be very few. MH noted that the rate of change variability needs to be addressed as it can have an effect on end users with GJ commenting that Wobbe has a similar potential so any impacts on this will also require consideration. LJ asked if it was possible to demonstrate that Jackdaw does not alter the level of variability that currently exists. GJ's view was that there will be more of an effect on Wobbe as

this can be impacted by a number of issues and the effect of Jackdaw alone will not be too significant. Consequently because this will be limited to a few isolated days, the response proposed needs to be appropriate. JCx agreed but commented that even the odd days will need to be dealt with. MH made the point that limiting the use of a significant new gas field is wrong and the increased use of price sensitive imported flows is more of a factor with regards to quality.

DRa asked if Centrica and RWE could provide examples of unusual days and advised that on high demand days, gas from Teeside tended to be used close to the terminal which narrows the location where any effects can be seen. LJ advised that the information needed is a forecasted daily average of CO₂ Levels. MH thought that this would be difficult without making some large assumptions. DO noted that the issue is the rate of change over a given day and its effect on Wobbe asking if there are any limits on this for entry into the NTS system. JCx replied that there were not. The workgroup then discussed the situation where gas entered the NTS system meeting the Wobbe criteria and a subsequent issue with its quality only being identified later. JCx advised that there is evidence of power stations tripping due to this issue. AH advised that whilst it cannot be demonstrated that the Modification will have no impact, he will try to show that the effects it will have will be minor and infrequent along with the benefits it provides in terms of security of supply. Finally JCx advised that the information in the E.ON report was based on UK data and DRa noted that there have not been any issues with gas compressors caused by increased CO₂ levels.

LJ closed this discussion saying that further presentation materials will be provided by the Proposers showing their view of the situation following an increase in CO₂ levels going forward and also material from Shippers which will show their opinion of what will happen based on historical evidence / information.

DP then went through a presentation detailing the proposed new gas field developments. She advised that of the ten proposals eight would fall within the 2.9 CO₂ gas specification. She confirmed that of the two that are expected to fall out of the specification one field believes they have sufficient blended gas to allow it to comply. The workgroup discussed the topic further with an understanding that one of the fields identified as being above the limit is Jackdaw and that current evidence shows that there has not been an increase in CO₂ as new developments have come on stream. AH asked if the information could show which terminal the new fields would feed. DP agreed to provide an updated slide to also include the fields' development status. The participants were asked to feedback any queries to DP.

New Action 1101: DP to provide an updated set of slides to include information on the terminals that the new fields will feed and their development status.

4.2 The impact on consumers – warranty, operational and emissions related.

The Workgroup discussed the difficulties of using and publishing information on warranty issues etc. when it was provided on a confidential basis with a proposal to solve this problem by aggregating the information or anonymising it by sending it through Ofgem or the Joint Office. LJ advised holding this issue over until some information has been received and is available for consideration. The issues being impact and location of the end users as the businesses with the 4% limit may not be in an area that is affected. JCx agreed to provide some information on variation

of gas quality and its effects on customers' plant and equipment. MH commented that information from 2006 onwards would need to be used as this was when the main recent change in gas supply occurred.

New Action 1102: JCx to provide some information on variation of gas quality and its effects on customers' plant and equipment.

4.3 CO₂ removal and whether this was best carried out onshore or offshore.

AH confirmed that there was not much more to add to the offshore discussion, confirming that ETS does not apply offshore. He advised that as long as the emissions are free of VOC's they can be vented to atmosphere without costs being quoted under ETS emissions legislation. DO noted that removal of H₂S would happen anyway so this would not be an extra cost.

The presentation prepared by British Gas in August was discussed and the Proposer was asked to clarify the cost implications of removing H₂S and CO₂.

New Action 1103: AH to clarify the cost implications of removing H₂S and CO₂ in regards to the August British Gas presentation.

4.4 Completion on carbon cost assessment

DO provided the background to the assessment which included the benefits and key facts such as the likelihood of a variation in CO₂ as a result of Jackdaw coming on stream being very small and an expectation that any issues would occur in the Summer months. He advised that Jackdaw was looked at as a single stream which was effectively the worst case scenario and that three possibilities were considered. These were removing the CO₂ offshore: removing the CO₂ onshore: the impact of delivering gas with a 4% CO₂ content to the NTS system.

The costs of scenarios one and two were discussed along with the implications of including the capital and operating costs for constructing and running the removal plants. It was noted that in both scenarios, two plants would be needed, one for each terminal. As scenario three involved Jackdaw just being allowed to operate, no investment was required.

LJ asked DRe to review the presentation and feedback whether the approach is appropriate, in particular with regard to capital costs.

New Action 1104: DRe to review the carbon assessment presentation and feedback whether the approach is appropriate in particular with regard to capital costs.

The workgroup discussed this further including the lifecycle aspects of building the removal plants and DO noting that the impact of removing CO₂ whether onshore or offshore was worse than option three which was to allow pass through. It was commented that the assessment compares the issue of CO₂ levels moving from 2.9% to 4% which in BP's view was the worst case scenario. MH noted that it would be good to look at the expected average rather than the worst case scenario and LJ advised that the best approach would be to include a range of scenarios, the worst case and a typical period.

DRe noted the importance of a cost benefits analysis which he wished to review and LJ asked for this topic in its entirety to be considered further by the participants off line.

New Action 1105: AH / DO to rerun the calculations in the carbon assessment presentation based on an expected average CO₂ level and to include an option 4 based on information on typical average values to be provided by Dra

4.5 The future outlook for similar gas sources in terms of setting precedents, and the context and value/cost for the UK

AH asked if the workgroup thought there would be any benefit in looking at data showing other current CO₂ levels to see if the fear that all producers may wish to increase their limits to 4% has any basis. The existing limits and precedents were discussed with Dra advising that where 4% limits exist now these are due to legacy contracts. JCx spoke about potential discrimination against those end users who will have to use gas from Jackdaw and the question was asked if anyone was aware of other producers having to invest in CO₂ removal in order to gain entry into the NTS system. It was mentioned that in this case an organization was trying to not correct the quality of the gas by adjusting the upper limit.

AH commented that looking at other fields was not completely relevant due to the size of the Jackdaw field and the importance of it to the UK. He also pointed out the significance of the use of a single pipeline which is unique. The discussion moved on to development of high pressure / high temperature gas fields and MH offered to provide a summary of the position. LJ asked him to produce some slides on this subject.

New Action 1106: MH to provide some presentation slides summarising the position regarding the development of high pressure / high temperature gas fields.

LJ expressed the view that CO₂ removal was part of the cost of getting the gas on shore and that Jackdaw should not be treated any differently to any other fields. DP agreed to report back on the policy decision regarding the driver for the development of the Jackdaw field and the alteration of the CO₂ limit.

New Action 1107: DP to report back on the policy decision regarding the driver for the development of the Jackdaw field and the alteration of the CO₂ limit.

5.0 Development of the Workgroup Report

5.1 Review of Relevant Objectives

This was not discussed further at today's meeting.

5.2 Consideration of Legal Text

This was not discussed at today's meeting.

5.3 Recommendations including additional questions for UNC Modification Panel consideration

This was not discussed at today's meeting.

6.0 Diary Planning

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

Workgroup meetings will take place as follows:

Date	Location
10:00 Monday 08 December 2014	Elexon Limited, 5th Floor, 350 Euston Road, London, NW1 3AW
10:00 Wednesday 21 January 2015	ENA, 6 th Floor, Dean Bradley House, 52 Horseferry Road, London SW1P 2AF
10:00 Wednesday 25 February 2015	ENA, 6 th Floor, Dean Bradley House, 52 Horseferry Road, London SW1P 2AF

Action Table – Combined Workgroup 0498/0502 (04 September 2014)

Action Ref	Meeting Date	Minute Ref	Action	Owner	Status Update
0803	07/08/14	1.2	<i>Variability Data for major entry/exit points</i> - All parties to review the UNCORM Data Dictionary (http://www.gasgovernance.co.uk/tpddocs) and other recognised data sources, and assess and report on the capability of providing sufficiently current and accurate data to inform Workgroup views.	All parties	Closed
0804	07/08/14	2.0	<i>Assessment of Environmental Impacts</i> - For each Modification, the Proposers to review and consider providing appropriate information to meet the requirements necessary under the UNC.	Proposers (AC and AH)	Closed

Action Ref	Meeting Date	Minute Ref	Action	Owner	Status Update
0807	07/08/14	2.0	<i>'Rate of change' issues for operating equipment</i> - Consider providing examples or information where this sort of problem had been experienced/encountered before.	SSE (JCh)	Carried Forward
0808	07/08/14	2.0	<i>CATS and TGPP infrastructure</i> – Provide revised schematic to confirm how facilities will be configured, what will be upgraded and likely combined costs.	TGPP (AH)	Carried forward
0809	07/08/14	2.0	<i>Offshore Development Opportunities</i> – Proposers to describe what these are and their timings, and the potential forecast variations in CO ₂ , and then assess the potential effects on Teesside gas entry quality. (BP also to confirm if the forecast information is the most up-to-date.	<i>It was agreed that BP should lead on this action.</i> BP Gas (AC/AP)	Closed See action 1002
0810	07/08/14	2.0	<i>ETS and venting of CO₂ emissions</i> – Proposers to confirm what is included/ excluded and how dealt with.	Proposers (AC/AP and AH)	Closed
0901	04/09/14	1.2	National Grid NTS (RH) to write to Terminal Operators and request they provide 13 months of CO ₂ data (entry and exit) for the following sub terminals: Bacton, Easington, St Fergus, Barrow and Theddlethorpe and also the 2 sub terminals from BP directly to the workgroup	National Grid NTS (RH)	Closed
1001	02/10/14	1.2	An analysis of examples of high variations in CO ₂ levels to be provided. To include: the demand on that day: the hourly average and its effect on the system: the frequency of this occurrence: where the affected exit points were located.	National Grid (DRa) to work with AH and AM)	Closed

Action Ref	Meeting Date	Minute Ref	Action	Owner	Status Update
1002	02/10/14	1.2	MB to advise if any information on the development of proposed new gas fields has been published and to provide this to the workgroup if available.	DECC (MB)	Closed
1003	02/10/14	1.2	Discussions to be held with DECC on how the organisations involved can be encouraged to participate in order to improve the levels of response to the requests for information.	TGPP (AH)	Closed
1101	10/11/14	4.1	DP to provide an updated set of slides to include information on the terminals that the new fields will feed and their development status.	DECC (DP)	Pending
1102	10/11/14	4.2	JCx to provide information on variation of gas quality and its effects on customers' plant and equipment.	Energy UK (JCx)	Pending
1103	10/11/14	4.3	AH to clarify the cost implications of removing H ₂ S and CO ₂ . In regards to the August British Gas presentation.	TGPP (AH)	Pending
1104	10/11/14	4.4	DRe to review the carbon assessment presentation and feedback whether the approach is appropriate in particular in regard to capital costs.	Ofgem (DRe)	Pending
1105	10/11/14	4.4	AH / DO to rerun the calculations in the carbon assessment presentation based on an expected average CO ₂ level and to include an option 4 based on information on typical average values to be provided by DRa	TGPP (AH / DO)	Pending
1106	10/11/14	4.5	MH to provide some presentation slides summarising the position regarding the development of high pressure / high temperature gas fields.	Oil and Gas UK (MH)	Pending

Action Ref	Meeting Date	Minute Ref	Action	Owner	Status Update
1107	10/11/14	4.5	DP to report back on the policy decision regarding the driver for the development of the Jackdaw field and the alteration of the CO ₂ limit.	DECC (DP)	Pending