THE INFRASTRUCTURE PLANNING
(EXAMINATIONS PROCEDURE) RULES 2010

Preesall Underground Gas Storage Facility, Lancashire

HALITE COMMENTS ON RESPONSES TO EXAMINING AUTHORITY’S FURTHER WRITTEN QUESTIONS

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INTRODUCTION

1.1 The Panel of Examining Inspectors (the “Panel” or “Examining Authority”) set out a list of further written questions (“Further Written Questions”) to Halite Energy Group Limited (“Halite”) and other parties pursuant to Rule 8 of The Infrastructure Planning (Examinations Procedure) Rules 2010 (the “Procedure Rules”) at Annex A of its letter dated 18 July 2012 relating to Halite’s application for a development consent order to authorise the construction and operation of an underground gas storage facility and associated development, including a brine pipeline and gas interconnector pipeline, in Preesall, Lancashire (the “Project”).

1.2 The following other parties responded to the Further Written Questions:

1.2.1 Stuart Perigo, Head of Development Management, of Lancashire County Council (“LCC”) in his letter of 15 August 2012 (“LCC’s Letter”);

1.2.2 Ian Mulroy of Protect Wyre Group (“PWG”) in his document of 14 November 2012 given reference 10015247 (“PWG’s Response”); and

1.2.3 Philip Anthony Mitchell’s email of 15 August 2012 (“Mr Mitchell’s Response”).

1.3 This document sets out Halite’s comments on the above responses to the Panel’s Further Written Questions.

1.4 The Panel stipulated 24 August 2012 as the due date for Halite’s comments on responses to its Further Written Questions. This document was submitted to the Panel within that deadline.

DEFINED TERMS

2.1 For ease, this document uses the following defined terms:

“BGS” British Geological Survey

“CLP” Community Liaison Panel

“CGSL” Canatxx Gas Storage Limited

“COMAH” Control of Major Accidents and Hazards

“COMAH Regulations” Control of Major Accident Hazards Regulations 1999

“DCO” Development Consent Order

“DCO Application” Halite’s application for a DCO (PINS reference EN030001)

“HSE” Health and Safety Executive

“GSR” Geology Summary Report (Document 9.2.2)

“Halite” Halite Energy Group Limited

“Hazardous Substance Consent process” the process for obtaining hazardous substance consent under the Planning (Hazardous Substances) Regulations 1992

“HSE” Health & Safety Executive
“LCC” Lancashire County Council

“Project” underground gas storage scheme subject of the DCO Application

“Requirements” requirements at Schedule 9 of the draft DCO (Document 6.1)

“SoCG” Statement of Common Ground

“UGS Facility” underground gas storage facility forming part of the Project

“WBC” Wyre Borough Council

2.2 Documents submitted with the DCO Application are referred to by their name and document reference, for example “Gas Interconnector Pipeline report (Document 9.2.6)”.  

2.3 Documents submitted by Halite following the DCO Application and referred into this document include:

2.3.1 Halite’s Response to the Examining Authority’s First Written Questions, referred to as “Document H1”;  

2.3.2 Halite’s Comments on Local Impact Reports, Relevant Representations, Written Representations and Comments on Responses to the Examining Authority’s First Round of Written Questions, referred to as “Document H3”; and  

2.3.3 Halite’s response to the Further Written Questions, referred to as “Document H5”.  

2.4 Statements of common ground are referred to by their topic and reference number in the list of statements of common ground in Document H2 submitted by Halite to the Panel on 6 June 2012, for example “a statement of common ground on geology (SoCG 1) and safety (SoCG 15)”.

**LCC’s Letter**

2.5 Halite has reviewed LCC’s Letter, which responds to Question 8 of the Panel’s Further Written Questions, and agrees with its summary of the role of LCC’s geology consultants, Atkins, in respect of the DCO Application, their interaction with Halite and the matters agreed.

2.6 However, Halite is able to provide clarification in respect of the following paragraph of LCC’s Letter:

> “Whilst the quantification in the Risk Assessment Report is considered to be unrealistic by Atkins, they are satisfied that it has been done on a conservative basis and that even if the figures do not accurately represent the true risks, the risks are nevertheless extremely low.”

2.7 Halite does not accept that the Risk Assessment (Document 9.3.1) is “unrealistic” and, whilst it is Halite’s understanding that Atkins had reservations concerning the provision of numerical values to risk factors in the course of the work undertaken (see paragraphs 2.10 and 2.11 below), it is also Halite’s understanding that Atkins did not consider the conclusions of that work to be “unrealistic”.

2.8 The Risk Assessment (Document 9.3.1) was undertaken to assist understanding of the risk from the storage of gas. This was because previous applications had been
criticised on the basis that the risks had not been adequately addressed. As
detailed in the Risk Assessment (Document 9.3.1), methods of assessing risks were
reviewed from the HSE documents specifically written to address this aspect (HSE
Documents RR605, RR606 and RR671, see Section 3.2.2 of Doc 9.3.1). These
reports concluded that the rate of gas flux from a cavern was extremely small for
geological scenarios such as Preesall. However, Halite considered that a site
specific risk assessment would better address the concerns on gas risk, and
therefore the source-pathway-receptor assessment was undertaken. This
assessment identified that the risk of gas escape for the identified scenarios was
extremely low.

2.9 Atkins agreed that the source-pathway-receptor approach used by Halite was an
acceptable methodology. Atkins also agreed that the qualitative assessment of the
likely sources, gas migration pathways and potential receptors that were set out in
the Assessment was complete.

2.10 Where Atkins did raise reservations with the Risk Assessment (Document 9.3.1)
was in Halite’s attempt to provide numerical values to the various risk factors.
Atkins considered that it was too difficult to give numerical values to the various
risk factors and, therefore, the calculations that followed for each scenario were
open to differences of opinion.

2.11 Halite appreciates the difficulty in providing numerical values for risk scenarios and
has referred to this in Section 3.10 of the Risk Assessment (Document 9.3.1).
However, in the absence of any accepted guidance or standards, Halite considers
that the approach set out in the Risk Assessment (Document 9.3.1) is robust and
enabled the scenarios to be ranked, something which had been requested by
LCC/Atkins.

2.12 However, notwithstanding Atkins’ initial reservations in respect of the numerical
calculations, Atkins concluded that the proposals would incur negligible risk of
fatality, injury or significant property damage (see the LCC response to consultation
under section 42 of the Planning Act 2008, a summary of which is provided in
Schedule 4 of the Consultation Report (Document 3.1).

3 PWG’S RESPONSE

3.1 PWG’s Response covers a number of issues. Significant elements of it refer to the
history of Canatxx Gas Storage Limited ("CGSL") proposals which were the subject
of previous planning applications. Halite has sought to focus in this response only
on those issues raised which are of relevance to the DCO Application. Further, for
the avoidance of duplication, Halite does not intend to respond again to points
raised by PWG which Halite has already addressed in materials submitted to the
Panel in the course of the examination of the DCO Application to date.

3.2 Halite has not, therefore, responded to every point raised in PWG’s Response. For
the avoidance of doubt Halite does not accept any given point raised in the PWG
Response, unless expressly stated.

3.3 However, to assist the Panel, Halite would comment as follows on certain points
raised by PWG at this juncture:

Question 4 of the Further Written Questions
Halite comments as follows on PWG’s response to Question 4 of the Further Written Questions:

Section 2 of the BGS report CR/09/038 entitled “Faulting at Preeall and other saltfields: information relevant to gas storage in the Preeall Halite Energy Programme Commercial in Confidence Commissioned Report” (at Appendix 1 of this document) specifically addresses the interpretation of the Burn Naze Fault location. As noted by Halite in paragraphs 3.136 to 3.138 of Document H3, the interpretation of the location of the Burn Naze fault is considered to be a cautious interpretation, as this is the furthest point to the east at which the fault could be located, as indicated by the data. If the salt deposit is thinner than shown in the model at the current time, because of sedimentary deposition conditions, the Burn Naze Fault must be located further to the west and therefore does not pose a safety risk as the stand-off distance will be greater than the minimum required under the preliminary design recommendations (set out under Requirements in the draft DCO). The preliminary design recommendation in respect of the number of cavern radii required between the Burn Naze fault and any operational cavern will be specified in Requirement 6 of the next revision of the draft DCO, to be submitted to the Panel on 31 August 2012.

PWG have referred to the section in drawing ending 0004. It should be noted that borehole E1 shown in the Section 6 was located some 160m to the north of the section line, hence it is shown offset.

Question 5 of the Further Written Questions

Halite has no further comments in respect of PWG’s response to Question 5 of the Further Written Questions and would simply refer the Panel to paragraphs 5.12 to 5.18 of Halite’s response to the Further Written Questions (Document H5).

Question 7 of the Further Written Questions

Halite has no further comments in respect of PWG’s response to Question 7 of the Further Written Questions and would simply refer the Panel to paragraph 5.28 of Halite’s response to the Further Written Questions (Document H5).

Question 10 of the Further Written Questions

In respect of PWG’s response to Question 10, Halite would refer the Panel to paragraphs 5.35 and 5.36 of Halite’s response to the Further Written Questions (Document H5). As noted in Halite’s comments on PWG’s response to Question 4 at paragraph 3.4 above, variation in the salt thickness between the current model and what might be encountered at any location does not imply a safety risk. In any event, the preliminary design recommendations in Requirement 6 of the draft DCO would apply. As Halite previously noted in its responses to Questions 13, 14 and 15 of the Panel’s Further Written Questions (Document H5), the thickness of the salt within the polygons will of course be further defined as additional geological information becomes available, should consent be granted at this stage.

Question 13 of the Further Written Questions

PWG’s response to Question 13 refers to the Technical Assessor’s comments at the 2005/6 Public Inquiry in respect of a previous CGSL planning application. Those comments were in relation to a larger and less well-defined scheme. Since then, further information has been obtained (see Halite’s responses to Questions 1/7 and 1/21 of the Panel’s First Written Questions (Document H1)) and the scheme has been substantially reduced, and assessed in greater detail.
3.9 PWG also refers to BW130 and their contention that a void was encountered at salt rockhead. As noted in Halite’s response to Question 17 of the Further Written Question and Appendix 7 in Document H5, the BW130 log sheets 13 and 14 do not indicate a void at salt rockhead. The log report shows a full formation log and no reference is made to a loss of core. The loss of core would be a significant event and would be logged. BDF, which at the time (1990) was employed by ICI to drill BW130, has previously made a statement regarding BW130 which was addressed by Halite in the Geology Summary Report (Document 9.2.2) and included in Appendix D.

3.10 At the previous Public Inquiry, PWG referred to comments from a temporary labourer, Mr Robinson, who was employed by BDF, that the rig shuddered when coring in BW130 close to salt rockhead and that the drill rods dropped 5m. Mr Robinson also stated that it was reported that BDF had found a 5m deep void. A copy of the statement by Mr Robinson was included in the Geology Summary Report (Document 9.2.2), Appendix D and was discussed within Section 5.2.6 of the Geology Summary Report.

3.11 BDF rejected Mr Robinson’s account as his statement had factual errors and did not accord with the records of their experienced driller. BDF stated it was not possible for the rods to drop 5m. See the BDF statement in Appendix D of the Geology Summary Report (Document 9.2.2).

3.12 The BDF log sheets 13 and 14 supplied at Appendix 7 of Halite’s response to the Further Written Questions (Document H5) show clearly that the rods did not drop, that there was no void, that the core runs did take 7 and 7.5hrs and not one hour as Mr Robinson stated, and that a full core was obtained.

3.13 PWG appears to have linked Mr Robinson’s statement and a reference on log sheet 13 to a test carried out on the rig by a BDF technician named D Sheard. The statements by PWG that a void was encountered and that the issue has not been addressed by Halite are factually incorrect.

**Question 25 of the Further Written Questions**

3.14 Halite would comment on PWG’s response to Question 25 of the Further Written Questions as follows:

3.14.1 PWG’s response is symptomatic of a wider point, which is the apparent refusal by PWG to accept that there are effective safeguards which have been developed over many years within the major hazards industries operated within the UK, Europe and worldwide.

3.14.2 Halite understands the concern of local people and has endeavoured to communicate that underground storage in salt cavities is a well proven, safe system for the storage of gas. Incidents that have occurred throughout the world have been addressed in Halite’s comments on PWG’s written representation at paragraphs 3.145 to 3.148 (Document H3), which explained why those incidents referred to by PWG are not relevant due to the nature of the facilities involved in those incidents, by contrast to the nature of the proposed UGS Facility. In any event, modelling of accidents and the associated risk assessments in the Risk Assessment (Document 9.3.1) are consistent with the normal practice and HSE guidance for risk assessments for planning purposes and demonstrate that the risks to the general public are extremely low (see paragraph 3.164 of Document H3).

3.14.3 Halite’s comments in Document H3 at paragraphs 2.32 to 2.49, on geology and risk and hazardous substances consent, explain that, based on the principle of
underground gas storage caverns and the basic specifications of capacities, pressures, pipe dimensions etc., the Health and Safety Executive has assessed that the Project would be acceptable under the Hazardous Substances Consent process (which is a risk based process and does not consider acceptable distances or exclusion zones).

3.14.4 PWG may wish to see that the full COMAH process was undertaken before it (PWG) would be prepared to accept that the risks it fears are unlikely to materialise. However, the consents regime is such that the COMAH process will follow the issue of a DCO (if made).

3.14.5 The COMAH process will review aspects of the design, construction and operation of the proposed UGS Facility in detail. If Halite fails to satisfy the authorities that the Project can be achieved at a sufficiently low risk to all members of the public and to the environment, consent under the COMAH Regulations will not be given for it to proceed.

3.14.6 The road transport of Liquified Natural Gas, which is referred to in PWG’s answer to this question, poses a completely different potential risk to the public, compared with the transmission of gas within pipelines and the storage of gas in caverns.

*Question 20 of the Further Written Questions (following the order of PWG’s Response)*

3.15 Halite would comment on PWG’s response to Question 20 of the Further Written Questions as follows:

3.15.1 The factual information provided in the Risk Assessment (Document 9.3.1) and Geological Summary Report (Document 9.2.2) provided evidence to United Utilities’ ("UU") geological and asset protection team to make its own assessment of the risks that the proposed position of the caverns did not pose any threat of gas migration into their infrastructure.

3.15.2 In particular, because of the distance in depth between Fylde Interceptor and the caverns as well as the distance between the two across the Wyre Estuary, UU were reassured that the risk of gas escaping into the Interceptor would be virtually impossible. In other words, as stated in the Statement of Common Ground between UU and Halite (Appendix 2 of Document H3) there is a very low risk to the Fleetwood Waste Water Treatment Works or the Fylde Interceptor Tunnel.

*PWG’s comments on Halite’s comments on Local Impact Reports, Relevant and Written Representations and comments on Responses to the First Written Questions*

Section 9 - National Need

3.16 Halite has previously responded to PWG’s comments on need and has nothing further to add other than that Halite does not consider that an increase of 3 days gas storage capacity in the UK that would be brought about by its Project can reasonably be characterised as ‘small’ or ‘marginal’.

Section 10 - Community Liaison Panel and Section 12 - Residents Objections

3.17 Halite would comment on points raised in Sections 10 and 12 of PWG’s Response as follows:
3.17.1 The history and the findings of the Community Liaison Panel ("CLP") are set out in detail in the Consultation Report and its Appendices (Document 3.1). Halite rejects any arguments that ‘any hostility towards the Independent Facilitator was probably of her own making’. The Independent Facilitator has significant experience and a track record in establishing and working with such groups, which is set out in her CV.

3.17.2 Mr Iain Johnstone, who represents Fleetwood Civic Society, and who is also a member of PWG, is on the CLP. Halite has continually invited PWG to join the CLP as well.

3.17.3 Halite believes that the CLP has been fully effective in its remit, a fact borne out by its continuation during the examination of the DCO Application with a corresponding increase in membership. Hambleton Parish Council joined the CLP in June this year. This week, both Fleetwood Town Council and Wyre Borough Council have agreed to join the CLP.

3.17.4 Similarly, Halite does not consider that its consultation with residents ‘served little purpose’. As the Chairman of PWG acknowledged in the June 2011 edition of Over Wyre Focus: “There has been a marked difference in the way that the new management team at Halite tackled this exercise and PWG cannot fault their interaction with the community and indeed their willingness to provide us with whatever additional information we have asked for “ as set out in Appendix I of the Consultation Report (Document 3.1).

Future monitoring/maintenance of the legacy brine field

3.18 Halite would comment as follows on paragraph 3.192 of PWG’s Response:

3.18.1 Halite has established a monitoring programme based on a risk assessment which consists, amongst other things, of the levelling of the brinewells and existing ICI monitoring points. The risk assessment and monitoring programme has been presented both to the HSE and the Environment Agency, who are satisfied with the approach being employed.

3.18.2 The extent and frequency of monitoring is being kept under regular review and future monitoring requirements will be updated to reflect the results obtained relative to the identified hazards. If additional monitoring points, methods and frequencies are considered necessary by either Halite or by the regulatory authorities, the monitoring programme will be adapted accordingly.

3.18.3 The monitoring of the brinewell casing heads is the critical element in the level monitoring programme; consequently, the removal of some of the levelling posts is not significant. Nonetheless, as noted above, this aspect is kept under regular review. The monitoring programme has been shared with the Environment Agency and the HSE, who are kept informed of progress.

3.18.4 Ground level monitoring has advanced considerably since the ICI days when this work was carried out using an optical theodolite. Halite currently employs a local company who use satellite and laser ground levelling equipment which has a significantly greater accuracy.

3.18.5 Halite’s geology consultants are also assessing the application of remote monitoring techniques such as satellite based systems and LIDAR, which will enable greater detail to be obtained and do not require levelling posts or any fixed ground reflectors. The monitoring programme has been shared with the Environment
Agency and the HSE, who are kept informed of progress. As noted in paragraph 3.18.2, these aspects are kept under regular review.

4

MR MITCHELL’S RESPONSE

4.1 Halite would comment on Mr Mitchell’s Response as follows:

4.1.1 The extraction of shale gas has been considered by the Department of Energy and Climate Change ("DECC") which has concluded that gas extraction may take place under certain controls.

4.1.2 Future applications for planning permission or other development control consents to extract gas on a wider production scale would have to take into account the potential impacts on existing infrastructure, not least COMAH sites. It is trite that the potential impact of a new development proposal on existing built or consented developments, particularly built or consented Nationally Significant Infrastructure Projects (which this Project would be, if the DCO is made), would be a material consideration to be taken into account by the relevant decision-maker, if the new proposal was likely to have significant effects on the operation of a built or consented scheme. It is for future developers to take into account potential impacts upon existing schemes, and not the other way round.

4.1.3 The report by BGS/DECC into the impact of fracking and gas abstraction (available on the BGS website) looked at the environmental impacts which were identified as:

(a) Carbon dioxide (CO2) and methane (CH4) emissions, particularly the potential for increased fugitive CH4 emissions during drilling compared with drilling for conventional gas;

(b) the volumes of water and the chemicals used in fracking and their subsequent disposal;

(c) the possible risk of contaminating groundwater;

(d) competing land use requirements in densely populated areas;

(e) the physical effects of fracking in the form of increased seismic activity.

4.1.4 Subsidence over depleted oil/gas fields can occur because of the bulk removal of pore fluids. Shale gas extraction, however, is not similar to oil/gas extraction as the reservoir source rocks are different, and the types and volumes of fluids removed are smaller. Subsidence caused by the extraction of shale gas has not been identified as a potential issue.

4.1.5 The potential for earth tremors from shale gas extraction to impact upon the Project has been addressed within the Seismic Desk Study (Document 9.2.7, Section 2.5.1) and in Halite’s response to Question 18 of the Further Written Questions (Document H5, paragraphs 5.69 to 5.74). Further comment on seismic risk was also given in Halite’s response to Question 19 at paragraphs 5.76 to 5.85 of Document H5.

1 Please see the following link to the DECC website, which discusses shale gas: http://www.decc.gov.uk/en/content/cms/meeting_energy/oil_gas/shale_gas/shale_gas.aspx

2 http://www.bgs.ac.uk/research/energy/shaleGas/environmentalImpacts.html
4.2 It is accepted by Halite that the possibility of further small earth tremors caused by fracking cannot be ruled out. It is considered, however, that the scale of tremors which may be caused by fracking are within the range which is typical for the UK in any event, and therefore does not give rise to unacceptable risk.

4.3 Production of shale gas on a full scale will be closely regulated and, as noted above, future development proposals will have to consider the potential for impacts on existing infrastructure, particularly COMAH sites.

 Berwin Leighton Paisner LLP

 23 August 2012