Dear Sir / Madam

Planning Act 2008 (PA 2008) (as amended) and the Infrastructure Planning (Examination Procedure) Rules 2010

Application for Development Consent for the Proposed Underground Gas Storage Facility at Preesall Saltfield, Lancashire – Application Reference EN030001

Panel’s Further Written Questions

Further to the procedural decisions and the timetable enclosed within my letter of 2 May 2012, the Panel has received a substantial amount of material: responses by 6 June to our first round of questions, Local Impact Reports from Wyre Borough Council and Lancashire County Council, and 43 Statements of Common Ground between the Applicant and a range of other parties; and further comments by 4 July on these submissions together with other documents. All of this material is available on the Preesall project page of our website.

We are most grateful to all participants who have submitted this material by the deadlines we set.

A number of further questions and requests for information have arisen from our consideration of the material submitted to us, and these are set out in Annex A. The deadline for replies to these questions is 15 August 2012, and Interested Parties will then have an opportunity to submit any responses to these replies by 24 August 2012.

You will note that the questions are grouped and addressed to the Applicant as well as some other specific organisations. Notwithstanding this, any Interested Party who wishes to respond to any of the questions may do so.

In accordance with the examination timetable enclosed within my letter of 2 May 2012 therefore, please send any response you wish to make to the questions in Annex A by Wednesday 15 August 2012 to the postal or email address set out at the top of this letter. Please address your email or postal submission to the “Preesall Saltfield Team”. If your submission exceeds 1500 words, please be aware that we may request further copies at short notice.

Looking ahead to later stages of the examination, if any Interested Parties wish to make representations to the Panel about the need for issue specific hearings, in addition to those
arranged to consider the draft Development Consent Order, they should do so also by 15 August 2012. Finally, if any Interested Party wishes to request an open floor hearing (provisionally reserved for the period 16-18 October 2012) or if any Affected Persons wish to request a compulsory acquisition hearing (provisionally reserved for the period 9-12 October 2012) they must formally notify the Panel as Examining authority by 24 August 2012.

Yours faithfully

Paul Hudson
Lead Member of the Panel of Examining Inspectors

Advice may be given about applying for an order granting development consent or making representations about an application (or a proposed application). This communication does not however constitute legal advice upon which you can rely and you should obtain your own legal advice and professional advice as required.

A record of the advice which is provided will be recorded on the Planning Inspectorate website together with the name of the person or organisation who asked for the advice. The privacy of any other personal information will be protected in accordance with our Information Charter which you should view before sending information to the Planning Inspectorate.
Annex A

The Examining authority’s second round of questions and requests for further information

1. Geology

The geological model

1. The three additional boreholes drilled in Monks Lane were to investigate the depth to rockhead (response to Question 1/6, document ref. H 1). Does this mean wet rockhead or the thickness of the drift deposits, and did the boreholes penetrate the halite?

2. Did any of the Fugro boreholes in or adjacent to the area of the northern polygon (for example FBH 35 and 38 shown on drawing number ending 0027 at appendix 17 of document ref. H1), penetrate the halite and were any of them used to extract brine?

3. The maximum horizontal displacements recorded in Figures 3.2.3 and 3.2.4 in the Seismic Desk Study (document ref. 9.2.7) refer to ground profiles proved in boreholes FBH 30 and FBH 37. What are these profiles?

4. The BGS 2005 geological model (reference no 8 in the GSR document ref. 9.2.2) gave the thickness of the halite in the Hackensall Hall E1 Borehole as 81m. This was later (2009) changed to over 200m on the assumption that it was penetrated by the Burn Naze Fault. Who commissioned the borehole, was the borehole cored, and what thickness did the original borehole description assign to the halite?

5. GC81-336 seismic line shown in BGS report CR/05/183N (reference no 8 in the GSR document ref. 9.2.2) has a large omission zone across the estuary which extends down to a depth below the halite. However, the model in the GSR shows thicknesses of salt approx 400m to 420m in the southern polygon area. What is the evidence to support this thickness?

6. BGS Report CR/05/183N (reference no 8 in the GSR document ref. 9.2.2) recorded a strong “intra Coat Walls Mudstone” reflector in seismic lines GC 86-DV371, IELP 99-25, CAN 97F and CAN 97G. This bed was presumably recorded in several of the cored boreholes in the area and in the geophysical logs. What is its thickness and lithology?

7. BGS Report CR/10/128 (reference no 20 in the GSR document ref. 9.2.2) describes the thickness of the halite in the Burrows Marsh Borehole as 320m. The geological sketch at paragraph 3.125, document ref. H3, gives the thickness as 390m. According to the BGS report this is the apparent thickness proved in the borehole. What thickness was used in the model?

8. Would Lancashire County Council please provide a copy of the assessment undertaken by specialist consultants on behalf of the County Council, referred to at paragraph 11.2 of the LIR.

9. Please provide a further amended version of drawing MMD -277663-G-DR-00-XX-0027 at 1:5000 scale giving additionally the indicative positions of the 19 caverns.

10. In the light of the geological model presented in the GSR (document ref.9.2.2) and the range of subsequent answers to specific questions about data, please confirm what is the calculated depth from the surface to the top of the halite bed, the thickness of the halite, and the depth of the bottom of the halite bed in the two polygons proposed for caverns, from the eastern boundary to the western boundary in each case.
Distances between caverns and other relevant structures.

11. The Rokahr design recommendations are stated to be internationally accepted (response to Question 1/36, document ref.H1). Please provide evidence of which international geological bodies have endorsed the recommendations intended for cavern design given in the GSR table 6.1, and examples of where they have been applied to underground gas storage projects in salt strata with mudstone interbeds.

12. Drawing number ending 0002 in appendix B of the GSR refers to possible cavern diameters of 60m and 80m (assuming r=30m and 40m). How do these diameters relate to the dimensions for the caverns shown in drawing number ending 0009 in appendix B of the GSR and the response to Question 1/20 (document ref. H1) which refers to diameters not greater than 100m?

13. Paragraph 3.115 (document ref. H3) refers to cavern locations/shapes as “indicative” and to be determined by “detailed analysis in due course”. Please confirm the ‘safe’ distance that would be used to separate the boundary of a cavern from:
   - an adjacent cavern
   - a fault
   - the top and bottom of the halite
   - an ICI cavern of known shape
   - a former brine cavern of unknown shape and any brine run that may be connected to it
   - wet rockhead.

14. In those cases where the positions of the geological boundaries cannot be precisely defined will the margin of error be added to the ‘safe’ distance?

15. What additional surveys would be carried out, prior to the submission of the pre-construction safety report to the Competent Authority required by the COMAH Regulations, to ensure that the positions of the halite boundaries, the faults and the former brine workings are determined with sufficient accuracy for the ‘safe’ distances to be applied?

16. Paragraph 3.114 (document ref. H3) states that boreholes cannot be used to explore the cavern sites because they create sterile zones. Why is this and how will the thickness and properties of the halite be determined at the proposed cavern sites if boreholes cannot be used?

17. What method will be used to determine the positions of any brine runs that might have developed when the area was worked by wild-brine pumping?

18. The response to Question 1/34 (document ref. H1) states that the "low seismic risk" and the hydrofracturing "are not anticipated to have any impact on the proposed caverns". Figure 2.4.2 in document ref. 9.2.7 records several earthquakes with magnitude >4.0ML within 50 miles of the Preesall site. Given that the most vulnerable part of the facility with respect to seismicity is likely to be the lazy-S boreholes where they pass through faults, has this risk been assessed?

19. From the information provided on drawings MMD-277663-G-DR-00-XX-0027, MMD-277663-G-DR-00-XX-0002, and Figure 1.32, Volume 2A of the ES (document ref.5.3), it would appear that casings to caverns 16 to 19 will cross a fault to connect the cavern to the wellhead. Please provide a risk assessment (including seismic risk, Question 18 above) for the scenario of failure of a casing where it passes through a fracture zone associated with a fault.
Possible impact on local infrastructure

20. The response to Question 1/38 (document ref. H1) indicates that a ground settlement in the region of 30mm may be experienced at Preesall WWTW during the life of the project. What are the views of United Utilities on the consequences of this for the treatment works, as the SoCG dated 13 June (document ref. H3) does not deal specifically with this point.

2. Further Information

21. SoCGs 1 and 15 (document ref. H2) do not contain a section on “data not accepted” as is the case with nearly all other SoCGs. Can these sections be provided please?

22. SoCG 15 (document ref. H2) excludes the safety justification of the storage caverns and risers. What are the reasons for this exclusion, and please can LCC provide more information on their concerns.

23. Paragraph 2.33 (document ref. H3), (response to Wyre Borough Council’s Local Impact Report), states that the “assessment of geology and cavern locations has taken account of the available guidance particularly BS EN 1918-3, HSE RR605, 606, 671 and BS8485”. Please can the Applicant detail which clauses of these documents have been taken into account and why.

24. Are the security measures proposed for the well heads which are designed to be unobtrusive to meet landscape requirements (low-lying mounds, transparent mesh security fencing) at the same time sufficient to meet likely COMAH requirements?

25. What standards are applicable for the appropriate minimum distance between publicly accessible land such as a public footpath and the secure parts of the proposal (wellheads, GCC, the booster pumping station etc)?

3. Noise impacts

26. The noise calculations given in the ES section 12.7 (document ref 5.1) refer to noise levels at Harbour Village at a distance of 50m from the drilling compound, whereas figure 1.16 in the ES Volume 2A (document ref.5.3) shows that the houses at Harbour Village are located immediately adjacent to the drilling compound. Please provide:
   • revised worst case noise calculations for the closest houses at Harbour Village
   • a statement about consultation with the owners and recent residents of Harbour Village with regard to noise levels from 24 hour working over a period of 12 weeks (May to August)
   • details of the screening and landscaping proposed to mitigate noise/nuisance/disturbance/dust and to screen the temporary compound for construction referred to in paragraph 3.539 (document ref. H3 as requested in the relevant representation from Persimmon Homes)
   • clarification about whether the revised working practices for the Southern Wyre crossing given in the response to Question 4/2 (document ref. H1) also apply to the Northern Wyre crossing.

4. Landscape impacts
27. Please provide a diagram showing the new slipway location referred to in the response to Question 3/4 (document ref. H1).

28. The tallest elements of the GCC are the glycol dryers at 13m high (18.5m AOD) and the vent stack described as either 15m or 16m high in the text / drawings (20m AOD on sections). Mitigation measures are described at section 14.8 of the ES (document ref 5.1), by cross reference to the Landscape and Ecology Management Strategy Plan at figure 14.10 of the ES Volume 2B, document ref. 5.4 and Appendix 14.11 of the ES Volume 1B, document ref. 5.2). What opportunities are there for possible additional mitigation such as increasing the height of the earth mounding, placing the GCC lower in the landscape or specifying all planting as native woodland, rather than dense scrub.

29. What equipment would be required to pump slurry to BW 123, and pump the return displaced brine to the booster pumping station? If equipment and control panels are to be located at BW123, please provide a plan and photomontage of the view from the Wyre Way.

5. Compulsory Acquisition

30. ABP interests are intended to be removed from the DCO but a number of plots remain in the Book of Reference:
   - Plot 59: ABP’s interest is recorded but excepted from acquisition
   - Plot 62: ABP’s interest is recorded but not excepted from acquisition of rights.
   What is the position?

31. Please explain the reason for deleting Electricity North West Limited, United Utilities Water plc, and National Grid Gas plc from Part 5 of the Book of Reference.

32. On what basis does the Applicant consider that a depth limitation is not necessary in respect of the rights sought in relation to plots 159-211(save 205) relating to its NTS pipeline.

END