Comments on Halite Response to Examining Authorities First Written Questions

by

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Pressall Saltfield Underground Gas Storage Application – IPC Reference No EN030001
SECTION 1: GEOLOGY

In our opinion Halite have failed to reply adequately to many of the questions in this section.

Question 1/1

Figure 1.1 of the Geological Summary Report (GSR, Document 9.2.2) outlines a process model for reviewing the geology. Does this application represent a particular stage in the model, assuming the top stage is the detailed design for COMAH approvals?

Comments on Halite's response

Halite's use of the words "the locations of and sizes of the probable caverns" does nothing to inspire any level of confidence that Halite's proposals have progressed much further than a desk study.

After a 20 year history of intent to put forward gas storage proposals, 3 rejected planning applications, a lengthy and very thorough Planning Inquiry, followed by a refusal by the Secretary of State, surely the size and location of the proposed caverns should have been determined by now, based on a thorough site investigation as recommended by the Assessor at the Public Inquiry.

Question 1/5

What new seismic-data, as distinct from the reassessment of data referred to in earlier applications, has been acquired for the present application?

Comments on Halite's response

No new seismic—reflection data has been produced in the areas where the proposed caverns are now located.

In fact some areas in the three previous applications which were put forward as ideally suited for gas storage by the developer (where some seismic data and borehole investigation had taken place), are now areas considered unsuitable according to Halite's current proposals.

Thank goodness those earlier assumptions were challenged; otherwise we would now be in the position of gas storage caverns currently being developed in high risk areas.

The site investigation recommended by the Assessor of at least two more seismic survey lines and the drilling and logging of boreholes along those survey lines has not been undertaken.

Why is Halite so reluctant to obtain the necessary data in the development area? Why keep re-assessing old data?
There was an attempt to determine the extent of the old conventional mine workings in 2010 but this failed to determine the boundary of the lower mine workings which were the subject of uncontrolled solution mining during WWII and up to and until the early 1960's. The site investigation is incomplete.

**Question 1/6**

The GSR includes data from four boreholes: Arm Hill, the Heads (2003) and Hay Nook, Burrows Marsh (2008, 2009) which appears to precede the preparation of the current application. Please confirm that no new boreholes have been sunk for the purposes of this application and whether the data from these four boreholes is reinterpretation of previous data or from re-drilling of the boreholes.

**Comments on Halite's response**

No new boreholes have been sunk in the area within which the current proposed salt cavern gas storage is located. All that is on offer is reinterpretation of old data.

**Question 1/7**

The proposed caverns are in areas where there is limited borehole and seismic data. Please provide the evidence to demonstrate that there is sufficient data covering the area proposed for the underground gas storage caverns.

**Comments on Halite's response**

The proposed caverns are indeed in areas where there is limited borehole and seismic data.

Despite the lengthy Halite response to question 1/7 (a) to (r); the simple answer to question 1/7 is that there is insufficient data provided covering the areas proposed for underground caverns.

No new deep boreholes have been drilled and no new seismic data has been acquired in the proposed area of cavern development.

**Question 1/9**

As the revised positions of the faults shown of the Rutherford (2010) model based on new data or on a reinterpretation of the six seismic-reflection profiles referred to in earlier reports?
Comments on Halite’s response

Everett Rutherford’s conclusions in regard to the position of faults are based on reinterpretations of old data supplied by the developer.

Question 1/18

What evidence is there that the location of every previous brinewell and cavern is known?

Comments on Halite’s response

Halite states in response to Question 1/18:

“In the records there has never been a case where there has been a record of a brinewell or cavern which did not have a known location.”

This statement is inaccurate.

The developer’s grasp of the layout of the former brinefield is tenuous and in some cases has proved to be inaccurate. It is a matter of record that both the developer and the British Geological Survey (BGS) mis-identified the location of BW108 and BW 109, showing their location 600m south of their true position. The BGS records were proved to be inaccurate.

Similarly, the developer and BGS refused to acknowledge the existence of BW 135, despite our evidence, being present on a daily basis at the time of the drilling of the well and the production of photographic evidence. The stance taken by the developer and BGS was that as BGS did not hold the borehole records, BW135 had never been drilled.

We produced correspondence and drilling records relating to BW 135 at the Public Inquiry. Halite has now accepted that this borehole was drilled (Geological Summary Report, March 2010, page 33).

Up until that time the Preesall salt member had been characterised as a syncline. The BW135 records proved that the salt was not as characterised by the developer and BGS. The Preesall salt member was subsequently redefined as a down faulted graben.

We do not claim any geological expertise but we are concerned that the developer has in the past refused to accept any evidence that is contrary to their views and in the case of BW130 is still adopting this stance (Geological Summary Report. March 2010, page 33) “until proven otherwise”.

The BDF Daily Drilling Report No 13 dated 09.01.90 refers to zero resistance which supports the evidence of Mr. Gregory Robinson that a 5m void had been found at the top of the salt beds. If Halite has all the records, as they claim, they should be able to confirm this.
Question 1/19

What reliance can be placed on the mapping of the wet rock head, and the claims in the GSR that it’s extent is stable?

Comments on Halite’s response

Responses (d) and (f)

Why does Halite continually refer to the catastrophic crown hole collapses in such a benign fashion? They are not “ponds”, these catastrophic crown hole collapses have resulted in properties being demolished and farmsteads being abandoned. They are considered so dangerous that ICI Chemicals and Polymers Ltd. erected security fences and monitored them on a weekly basis until such time as the existing crown hole collapses were considered to be stable.

In fact the Mine Subsidence (1934) was still being monitored by NPL (as the security fencing needed expanding) over sixty years on, right up until Canatxx (now Halite) took over ownership of the former brinefield.

Aggleby’s subsidence (BW52, 1974) is still collapsing, as is BW 88 (1994).

Section 6: Brine Well (BW) number 123 and disposal of waste arisings

Question 6/2

What progress has been made with the permission for environmental permits for:

i) disposal to existing cavern BW123 of the insolubles waste arisings from the cavern formation process, and

ii) use of drilling wastes as landscaping on site?

Comments on Halite’s response

The main cause of concern in regard to the disposal of sludge in BW 123 is that any material placed in the cavern that is not fully saturated will re-start the cavern development process, in an uncontrolled manner.

The fact that the cavern of BW123 is located beneath the coastal defences must be of major concern. Halite admit that the methodology has not been proved.
In Conclusion

It is our opinion that Halite’s responses to the Examining Authorities First Written Questions on other sections: Environment, Noise, Landscape, Access and the Gas Pipeline, do not adequately address the queries raised.

However, being mindful of the Examination Authorities request that duplication should be avoided, I am sure that others will address these issues. The most common phrase used by Halite in their planning application documents is “no significant impact”, close to 11,000 residents disagree with this assertion.

Thank you for reading this document.