Dear Sir/Madam

UNDERGROUND GAS STORAGE REGULATION 8 AND REGULATION 13. WRITTEN REPRESENTATION
PRESALL SALTFIELD, STALMINE, WYRE ESTUARY, LANCASHIRE

Thank you for your letter dated 2 May 2012 addressed to the Environment Agency as an Interested Party in this Examination.

Please find below our written representations on the above application. We have answered those of the Examining Authority’s initial questions which are relevant to us within our representations.

The Environment Agency is both a statutory consultee in the examination of this application for a Development Consent Order and the body responsible for issuing environmental permits in relation to the proposed development. These representations set out the comments we wish to make in relation to those issues which are relevant to the DCO application and also set out the factual position on permitting issues.

We have concluded three Statements of Common Ground with the consultants acting for Halite – Hyder – on the following topics :

1. Ecology

2. Landscape and Ecological Management Strategy Plan

Our only significant outstanding concern is that there is a risk (acknowledged by the applicant) that the gas pipeline which is part of the development proposed in this application will cause reductions in the levels of the flood defences maintained by the Environment Agency on the eastern side of the Wyre Estuary where it crosses these. If this happens it will result in an increased flood risk to properties in the area.

**Risk of Damage to Flood Defences on Wyre Estuary**

Our detailed comments in relation to this issue are as follows.

To first explain the Environment Agency's role regarding flood risk management, we are a non-departmental Government body and the principal flood risk management operating authority. Under the Water Resources Act 1991, we have powers to maintain and improve Main Rivers in order to ensure the efficient passage of flood flow and to manage water levels. We are also responsible for increasing public awareness of flood risk, flood forecasting and warning and have a general supervisory duty for flood risk management. As of 2008 the Environment Agency also has a strategic overview role for all flood and coastal erosion risk management.

The River Wyre is classed as Main River in the area of interest identified above. The eastern bank of the River Wyre estuary is adjacent to the site on which the development proposed in this application would take place and it is proposed that the gas pipeline from the storage caverns would cross these defences at a number of points depending on their exact location.

**Flood Risk – Risk of Damage to Crest Level of Flood Defences**

The issues on which Halite and the Environment Agency are agreed in relation to Water Quality, Sea Defences and Flood Risk are set out in the Statement of Common Ground specific to these issues.

It is agreed by Halite that there is potential for the gas pipeline to cause a reduction of the levels of the flood defences on the eastern side of the Wyre Estuary.

The Flood Risk Assessment (FRA) (Report number: 0009-WX40004-NHR-02 date July 2011) submitted by the applicant states

“The Project includes the installation of pipelines beneath existing coastal flood defences on the eastern side of the River Wyre Estuary and at West Way on the coast between Fleetwood and Cleveleys.

The river crossing would consist of four directionally drilled boreholes: one for the seawater passing from the seawater pump station; one for the returning brine; one for power, communications, controls and ancillary uses leaving one in reserve. These will be formed by directionally drilling boreholes from the West Bank, at sufficient depth to minimise the environmental impact. The pipelines will be a minimum of 8 metres below the bed of the River to ensure that the existing silt, sediments and flood defences are not disturbed. This would also facilitate the upgrade of the existing defences in the future.

With the construction of the new caverns a maximum aerial subsidence rate in the order of 2mm/yr has been estimated. As the rate at which the crest of the flood defences may reduce in height, due to subsidence, is relatively low the crest can be closely monitored over the lifetime of the Project and beyond. The monitoring would
enable appropriate and timely remedial works to be undertaken in order to maintain the existing standard of protection.

Subsidence also has the potential to cause sections of the earth bund to fail. Failure of the earth bund would lower the performance of the defence and increase the probability of flooding of land behind the defence. Regular structural surveys of the earth bund, throughout the lifetime of the Project and beyond, would ensure that any potential loss of performance was identified early, in order to implement remedial works to maintain the existing standard of protection.

Further investigations to confirm the potential for subsidence, as well as its impact on crest heights and the potential to cause defence failure are required. In the worst case scenario a commitment from the developer may be required to ensure that the existing standard of performance of the defences will be maintained over the long-term."

A drop in crest level of the flood defences could lead to an increase in flood risk for property and land owners in the Preesall and Stanah/Fleetwood area (see attached map illustrating the location of the defences) and this would be unacceptable.

The Environment Agency would want the applicant to be under a legal obligation to repair any reductions in the levels of its flood defences. We are in negotiations with Halite regarding a potential agreement containing legal obligations on the applicant to carry out the necessary surveying and any repairs of any flood defences which prove necessary. We understand Halite agrees that during and after the construction of the proposed development the crest levels of all flood defences within the area should be monitored by them and if the crest levels do fall significantly they should be under an obligation to repair them.

We are working with Halite Energy Group Limited to conclude an agreement which we hope will resolve our concerns and we will keep you informed of progress on this matter.
Fig 1. The Location of Flood Defences and Flood Zones 3 and 2 (High Probability and Medium Probability of river and sea flooding, ignoring the presence of defences)
Environmental Permitting

We are the competent authority for determining applications under the Environmental Permitting Regulations and a joint competent authority for COMAH. We have included information here about the progress that the applicant has made regarding relevant Environmental Permits.

Brine Discharge Consent Issued by the Environment Agency in 2007

We have been asked a specific question on this issue as follows.

3. Impact of the brine discharge to the Irish Sea and associated works.
1. Is the EA satisfied that there have been no change in circumstances since the issue of the brine discharge license in 2007 to warrant a reassessment?

Since issuing the brine discharge consent (now Environmental Permit) in 2007 we have not been notified of any changes of circumstances which would warrant a reassessment of this consent.

The North Western Inshore Fisheries and Conservation Authority raised concerns with us regarding the possible impact of rock armoring of the existing UU outfall at Rossall on the validity of the original dispersal modeling. (The existing outfall is officially referred to as the outfall serving Anchorsholme Pumping Station). The permit holder Halite Energy Group Limited has conducted their own investigations into the possible impact of the rock armoring of this sewage outfall pipeline. They concluded that the addition of rock armour would not impact the validity of the original dispersal modelling and that this did not constitute a change in circumstance. In consultation with Natural England we are satisfied with this conclusion which is supported by the shadow Habitats Regulations Assessment.

We have made it clear to the applicant that if there are changes in circumstances which would alter the validity of the modeling completed in 2007 then they must inform us before commencing with the discharge. This is also covered by condition 5 ‘Notice of Change’ within the permit.

We have been in discussions with Natural England and the North Western Inshore Fisheries and Conservation Authority regarding the monitoring and regulation of this consent. The Environmental Monitoring Plan will be kept under review throughout the life of the discharge with any changes being agreed jointly with those bodies to ensure an appropriate level of environmental protection.

The consent as issued has limits for TBT (Tributyl Tin), cadmium and copper. These are contaminants found within the water of Fleetwood Dock, which will be abstracted and used for dissolving the rock salt (halite) into brine, and not from the halite deposit. A review of the potential for dangerous substances to be found as impurities within the halite deposit was also undertaken from core samples taken in 2005. Although this review found no substances at high enough levels, it was still felt appropriate to add monitoring for around 13 dangerous substances within the monitoring program for the first 12 months as a precautionary measure.
Environmental Permit – Water Abstraction from Fleetwood Dock

We are in receipt of an application for an Abstraction Licence to allow Halite Energy Group Ltd to take water out of Fleetwood Dock in order to dissolve the halite into brine. The determination date for this licence is the 18 June, 2012. The Licence Serial Number will be NW/072/0400/001.

Environmental Permit - IPPC refining activity

The applicant has requested pre-application advice for the gas compressor compound which falls under the Environmental Permitting Regulations as a refining installation. They met with one of our PPC Regulatory Officers on 13th February for a pre-application meeting. The applicant subsequently submitted their proposed approach and scope for the application on 8th May and the Agency Officer provided comments on this on 10th May 2012.

A formal application has not yet been received.

Environmental Permit – Waste Recovery Activity

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

2. What progress has been made with the application for an environmental permit?

The applicant has requested pre-application advice for the management and disposal of insoluble mudstone deposits generated during cavern formation. They met with one of our PPC Regulatory Officers on 13th February for a pre-application meeting and were provided with the options for how the proposed activities could be permitted. Following subsequent correspondence the applicant has decided to apply for an Environmental Permit to deposit waste on land for the purposes of recovery. This activity will initially be carried out in cavern 123 with a view to it being applied to other existing caverns in future. The applicant submitted their proposed approach for the application on 8th May and the Agency Officer provided comments on 10th May 2012.

A formal application has not yet been received.

COMAH
The Control Of Major Accident Hazards Regulations were introduced in 1999, amended in 2005, to implement the Seveso II Directive and the aim is to prevent major accidents involving dangerous substances and to limit the consequences to people and the environment of any accidents which do occur.

The Health and Safety Executive and the Environment Agency together form the Competent Authority and they jointly regulate the duty holders to whom the COMAH regulations apply. The Health and Safety Executive have confirmed that meetings have been held with Halite to give them information as to their expectations under the COMAH regulations. This will include the production by Halite of a Pre-Construction Safety Report and Pre-Operational Safety Report. The majority of the detailed assessment will be completed by the Competent Authority when these reports are submitted. The Health and Safety Executive have stated that the assessment process will only begin when the reports have been submitted and...
hazardous substance consent has been granted due to the chargeable nature of the assessment work under COMAH.

**Biodiversity**
I refer all questions on this topic to:

Statement of Common Ground on the topic of the landscape and ecological management strategy plan.

Statement of Common Ground on the topic of Ecology

If you have any further questions please contact me on the details below.

Yours faithfully

**Amy Heys**
**Planning Liaison Technical Specialist**

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Flood Map and Defences (marked in red)

Legend
- Defences
- floodmap_areasbenefit_010k
- Flood_Zone_3_010k
- Flood_Zone_2_010k

Kilometers