Appendix B

Communication Materials

- Newsletters
- Letter to Schools and Leaflets (and List of Schools)
- Letter sent to Local Groups by Community Liaison Coordinator (and List of Groups)
- Direct Mailers
- Newspaper Advertisements
- Posters
- Presentation to Local Area Forums
- Brine Well 45 Communications
Welcome from

John Roberts

Dr John Roberts CBE
Chairman, Halite Energy

Welcome to the first edition of ‘in focus’ Halite Energy Group’s newsletter, designed to keep you informed of our proposed plans to create an Underground Gas Storage Facility in Preesall.

Halite Energy is a company with new ownership, new management and most importantly, a new approach.

As you may already be aware, we are in the process of submitting an application for our proposals to the Infrastructure Planning Commission (IPC). A critical part of this work is a comprehensive and thorough consultation with the local community and we see this very much as a two-way flow of information.

We are fully committed to listening to your views and giving you every opportunity to engage in the consultation process.

I hope that you find this newsletter informative and I encourage you to share your opinions and concerns with us by visiting our website and coming along to our public exhibitions which will be publicised in coming months.

Dr John Roberts CBE
Chairman, Halite Energy

Preesall Project in brief

The geology of the Preesall site is unique. Over 200 million years ago thick, deep rock salt was formed underground which now provides one of the safest ways to store gas. Storage of gas in salt is not new or unusual, it is a proven technology utilised throughout the world.

We propose to create new underground, purpose-built caverns in the salt body that exists at Preesall. When created, the caverns will be used for the storage of natural gas which can be supplied to the Gas National Transmission System, known as the NTS, during periods of high demand such as the recent winter cold snaps we have all experienced.

We have assembled a highly experienced team of experts to work on the project which includes specialists in cavern creation, geology, engineering and the environment.

Our initial project is a much smaller development than has previously been submitted, meaning that the volume of gas that would be stored would be significantly less.

Preesall Project in brief

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Also in this issue: OUR PROJECT IN A NUTSHELL  YOUR VIEWS COUNT  IPC PROCESS EXPLAINED  SAFETY IN STORAGE
Our project in a nutshell

Our indicative masterplan highlights the areas that are now being considered for the creation of the gas storage caverns along with the buildings and infrastructure that would be required to construct and operate the facility. It is this masterplan that we will be consulting with you on during the coming months.

Gas storage caverns
The caverns will be purpose-built for the project in areas of the salt that have been left untouched by previous brine mining operations. The location of the gas storage caverns has been identified following intensive investigations by our geological team and will be constructed according to industry best practice and approved by the Health and Safety Executive under the COMAH regulations.

Brine pipeline
To create the caverns a supply of water, together with pumps and underground pipelines is needed. Seawater would be taken from Fleetwood Fish Dock via a pump station which will pump water from the west bank of the Wyre estuary to the Preesall site.

Gas pipeline
The project consists of a gas compressor compound, gas distribution pipelines and manifolds connecting the cavern wellheads and a pipeline that links the gas compound to the NTS at Nateby.

Road improvements
Road improvements are also planned to make sure that the site is easily accessible during the construction and operation of the project. A new road is proposed from the A588 to the site, alongside haul roads within the site which will link the access road to the main permanent structures.

For more information about our project, visit www.halite-energy.co.uk

Your views count

Over the coming months we’ll be undertaking an extensive public consultation process so that we get a clear picture of the concerns, issues and comments of local people, community groups and stakeholders.

Our Statement of Community Consultation, which will be available to view in full on our website, sets out a clear plan of the activity we will undertake to ensure we consult effectively and with as many people as possible.

As part of the consultation we’ll be producing a suite of brochures and leaflets which will provide all the information you will need to make informed opinions and comments around the project. Overall we’ll be striving to demonstrate that we have placed safety at the heart of everything we do.

A key part of the consultation will be a series of exhibitions. It is very important to us that everyone who wants to is able to attend these events. They will give you the opportunity to meet the team, view detailed plans and drawings, and discuss any issues or questions you may have.

At the end of the consultation period the Halite team will carefully consider all comments made and will then produce a report summarising the findings. This document will be submitted to the IPC as part of the planning application and made available to the local community.

Your views really do count so let us know what you think.

Did you know?

The Preesall halite salt was deposited more than 200 million years ago.
Halite told us during August 2010 that they intended to submit an application to the IPC for a gas storage facility. We must ensure that everyone, including the developer, understands the process and the work that needs to be done before an application can be submitted.

The IPC held drop in sessions for the public at Wyre Villa Sports and Social Club and the Thornton Little Theatre as well as holding an event for other interested groups at the Euston Hotel in Fleetwood. We also met with the developer to give impartial advice about the application process.

Under the Planning Act 2008, applications for development consent for nationally significant projects, including wind farms, nuclear power stations and gas storage facilities which meet the thresholds, are submitted to the IPC.

The Planning Act 2008 places a clear duty upon developers to consult local communities on their proposals. For an application to be accepted for examination by the IPC, developers, such as Halite, must therefore demonstrate that they have consulted widely and effectively with everyone affected by a proposal.

The Halite proposal is currently at the pre-application stage of the process and this is the best time to have your say and ensure that you help to influence the decision, one way or another. There is plenty of time for anyone with a view on this proposal to make their views known to the developer and for the developer to act upon that feedback.

Once an application is submitted, the IPC has 28 days to decide whether or not to accept it. This decision is based on the information provided by the developer including the adequacy of the public consultation and quality of other supporting documents on issues such as the environment. If an application is accepted people then will have the opportunity to make their case to the IPC in writing – giving their views on the proposal.

It’s early days and I would urge anyone with an interest in this proposal to find out more about the developer’s consultation and take up this opportunity to have your say.

The IPC will provide further information to the local community, the Council and the developer as the proposal continues to develop and be progressed. “

To find out more about the IPC process you can visit our website www.independent.gov.uk/infrastructure or contact us by calling 0303 444 5000.
Project team focus

Debbie Morris

Debbie Morris is Halite Energy’s Community Liaison Co-ordinator. Her job is to meet with local people, listen to their questions, concerns and issues and provide access to information about Halite Energy’s proposals.

Before joining the Halite Energy team, Little Thornton resident Debbie had a successful career in retail, including 13 years with the Halifax Building Society as a Customer Services Assistant.

As the consultation process rolls out she will be very involved in organising and attending the public exhibitions and meeting with as many local people and groups as possible.

“I’ve already been meeting with some of the tenant farmers in Preeceall and I’m really looking forward to meeting with many more local people and hearing their views” said Debbie.

To contact Debbie call 01772 672 244 or email community@halite.net

Safety in storage

Using underground caverns to store gas is a long established and common practice with more than 70 similar projects in operation globally, including four in the UK.

The first UK site to be used for natural gas storage was commissioned in 1979 at Hornsea in East Yorkshire. Other sites can be found at Seal Sands in Teesside and Holford and Hole House in Cheshire. These caverns have an excellent safety record – no modern, purpose built, gas storage salt cavern has ever collapsed.

The Health & Safety Executive which is an independent Government watchdog, recognises salt caverns as a secure and environmentally sound way to store gas. Halite will follow strictly the rigorous rules and regulations set out by the HSE which cover the safety of gas storage sites, and will work closely with them throughout the construction and ongoing operation of the project.

Bruce Gibson, senior project manager at Halite Energy says: “The UK guidelines around the construction of projects of this nature are stringent. Every aspect of the development is scrutinised by the Health & Safety Executive. Safety is paramount to Halite Energy and we are absolutely committed to ensuring that every aspect of our project is safe and secure.”

To find out what the HSE say about safety and storing gas in salt caverns visit: www.hse.gov.uk/gas/supply/saltcavity

Visit our website

If you’d like to find out more about the plans for the Preeceall site visit the Halite Energy website.

You’ll be able to find information on all aspects of the project and have the opportunity to post questions and comments in the forum. All of the statutory documents including the Statement of Community Consultation, Scoping Report and Environmental Report are available on the site.

www.halite-energy.co.uk

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Consultation gets underway

Our formal community consultation commenced on 4 April running to the end of May. During this period we will be sharing with the local community our plans for a condensed Project which will involve creating purpose-built caverns in the salt field at Preesall to store natural gas underground. These plans have taken into account feedback from previous applications. We are listening to the views, comments and concerns of local people so that we submit an application to the Infrastructure Planning Commission (IPC) that incorporates feedback from the community.

More on page two...

Welcome from John Roberts

Dr John Roberts CBE
Chairman, Halite Energy

Welcome to our second edition of infocus, keeping you up-to-date with the latest news on our plans for an Underground Natural Gas Storage Facility at Preesall.

Since our last newsletter in January we have welcomed onboard a new chief executive with a wealth of experience in the energy and utilities sector in the North West – find out more about Keith Budinger in the team focus on the back page.

The new management team at Halite, including Keith and myself, has carefully reviewed the previous plans and applications for a gas storage facility on this site, along with the concerns that have been raised by the planning authorities and the local community.

We are confident that an Underground Natural Gas Storage Facility at Preesall can be created and operated safely and securely and are pleased to now be in a position to share with you the details of our new Project.

I hope that you take the opportunity to find out more about the latest plans and discover how you can have your say over the course of our two-month long community consultation, details of which are in this issue.
We are undertaking a range of activity to give local people the opportunity to view and comment on our plans including:

- Representatives from across the local community, including parish and town councils, have been invited to participate in a Community Liaison Panel
- Our Community Liaison Co-ordinator, Debbie Morris, will be out and about in the local area holding drop-in events where you can find out more about the plans and how to have your say
- We are meeting regularly with our Tenants’ Group – these are the people who live on and adjacent to the site of the proposed cavern development area
- We will be communicating with community leaders, councillors and MPs and answering their questions on the Project plans
- Visitors to our interactive website will be able to submit questions online and we will publish our responses
- We will be promoting our consultations in local newspapers and local radio and will be issuing a leaflet to almost 14,000 households in the area

**Dates for your diary – Public Exhibitions**

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<th>Venue</th>
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<tr>
<td>Stalmine Village Hall</td>
<td>Tuesday 10th May</td>
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<tr>
<td>St Oswald’s Church Hall, Knott End</td>
<td>Friday 13th May</td>
<td>10am – 7pm</td>
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<td>Saturday 14th May</td>
<td>10am – 4pm</td>
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<td>North Euston Hotel, Fleetwood</td>
<td>Tuesday 17th May</td>
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<td>Pilling Memorial Hall</td>
<td>Thursday 19th May</td>
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<tr>
<td>Thornton Little Theatre</td>
<td>Monday 23rd May</td>
<td>10am – 7pm</td>
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The exhibitions are a great way to meet our Project team, view all our consultation documents and feed back your views to us.

**Have your say – how you can contribute to the consultation**

It is very important to us to gather feedback on our proposals. We want to hear what you think and there are a number of ways you can let us know your views:

- Visit our website [www.halite-energy.co.uk](http://www.halite-energy.co.uk) and post your comments on the interactive forum
- Come along to one of our exhibitions
  - Email: community@halite.net
  - Call: 01772 672244
- Write to us at:
  - Halite Energy Group
  - Freepost RSRC-UETY-CHSU
  - Unit 5, St Georges Court
  - St Georges Park, Kirkham, Preston PR4 2EF

**Complete the questionnaire**, available to download from our website and then either hand it back to us at one of our face-to-face events, or post it to us at the Freepost address on the questionnaire.

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*Details of the addresses and opening times where consultation documents can be viewed can be found at [www.halite-energy.co.uk/consultation](http://www.halite-energy.co.uk/consultation)*
The geology of the Preesall area is unique – the rock salt (halite) was formed deep underground over 200 million years ago and has special characteristics that make it suitable for storing gas. The salt body is around 300 metres (1,000 feet) deep and 200-300 metres (660-1,000 feet) thick. Gas stored in the salt bed at Preesall would be at approximately the same pressure as the National Transmission System (NTS) – a network of pipelines that carry gas across the UK. This means that the Project would be able to provide a fast and efficient flow of gas between the caverns and the NTS, which would be important in helping maintain national energy levels at periods of peak energy demand.

Our site has been extensively investigated by leading geologists – work undertaken includes seismic surveys, drilling and surveying of boreholes, testing rock formations and sonar surveys of existing caverns. This work has enabled us to clearly identify key areas where our proposed project could be developed – this is away from existing caverns, historical workings and faults.

All aspects of the Project, including its design, construction and operation, must comply with the Health and Safety Executive (HSE) guidance and regulations relating to Underground Gas Storage.

**We are fully committed to developing a safe and secure Project.**
The need for gas storage

If it were to go ahead, the Preesall site would be of national significance. Gas stored at Preesall would be fed by pipelines into the National Grid for distribution throughout the UK.

Gas storage plays an important role in times of peak demand. The extreme weather this past winter highlighted the need for more UK gas reserves to meet demand and avoid potential supply emergencies.

The UK currently only has around 15 days of gas storage available to it, compared to France and Germany which have in excess of 100 days. The Preesall Project would add a further 20% to this. Gas storage will become more important as dependency on renewable energy sources increases. For example, if weather conditions meant that wind farms were not able to generate power, gas stored at Preesall would be readily available to ensure that energy supplies were maintained until conditions improved. The Project would benefit the whole country by providing security of gas supply for years to come.

To find out what the HSE say about safety and storing gas in salt caverns visit: www.hse.gov.uk/gas/supply/saltcavity.htm

Visit our website

If you’d like to find out more about the plans for the Preesall site, visit the Halite Energy website.

You’ll be able to find information on all aspects of the Project and have the opportunity to post questions and comments in the forum. All of the statutory documents including the Statement of Community Consultation and Preliminary Environmental Information Report are available on the site.

www.halite-energy.co.uk

For more information

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Welcome from John Roberts

Dr John Roberts CBE
Chairman, Halite Energy

Welcome to the latest edition of infocus. This issue follows the conclusion of our two-month community consultation on proposals to develop an Underground Natural Gas Storage Facility at Preesall.

I, along with other members of the team, very much enjoyed the opportunity to meet face-to-face with the local community and listen to your views on our plans. We have listened to many of your concerns, particularly around geology and safety and hope that having met with us, people in the community will recognise how much detailed work has been done to ensure that our Project is safe.

The team is now busy reviewing your feedback and correspondence, and will consider how the views and opinions expressed will impact on the proposals before making a decision on its next steps.

I would like to thank everyone who has taken the time to review and comment on our plans and look forward to sharing the results of our consultation with you in the coming months.

Launched on 4 April 2011, the formal consultation period has now ended. We would like to thank members of the local community for your valuable contributions to the recent consultation and for taking the time to consider and feedback on our proposals.

The consultation included a series of exhibitions across the local area, attended by 359 people. Halite has also met with a range of local groups including Local Area Forums, Stalmine-with-Staynall Parish Council and the Wyre Community Group.

We are now in the process of reviewing all the correspondence received and considering how the views and opinions expressed will impact on the proposals before finalising our plans.

More on page two...
We appreciate your feedback

From our initial review of the feedback received we are already able to let you know that further work will be undertaken on some key topics highlighted.

For example, in response to concerns raised about the impact of earthquakes on our proposed Project, we have commissioned a seismic study. Although not required at this stage, we hope that by carrying out this additional work and sharing the findings we will be able to reassure you that the caverns and above-ground infrastructure would be designed to meet the required standard.

Consultation facts:

**FACT 1** 359 people attended our series of five exhibitions

**FACT 2** 76 questionnaires received

**FACT 3** Over 20 pieces of media coverage, BBC Radio Lancashire, BBC TV North West

**FACT 4** Advertising in a range of media including Blackpool Gazette, Radio Wave, Garstang Courier

**FACT 5** Postcards promoting the exhibition sent to almost 14,000 homes

**FACT 6** Over 30 letters & emails received

Visit our website

Information about our proposed Project is still available from our website www.halite-energy.co.uk

This includes a short film explaining our approach to our proposals, full-length geological and environmental reports as well as bite-sized key subject summaries.

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**Mythbusters Q&A**

Following feedback from our community consultation we have compiled a Mythbusters Guide to outline some key facts around our proposed Project.

**M** The area in which you are proposing caverns is littered with faults and cannot possibly be safe to store gas.

**F** We have conducted extensive studies to identify two areas which are suitable for gas storage and far away from any known hazards such as faulting and old mine workings. This work has been verified by one of the leading European experts in salt mechanics, Professor R.B. Rokahr who has stated: “On the strength of my 30 years’ experience in salt mechanics and salt cavern construction, I can confirm that stable gas-tight salt caverns can be constructed in the Preesall salt formation for the storage of natural gas.”

**M** Massive amounts of gas will stored under homes in Fleetwood.

**F** There are no caverns underneath Fleetwood. The cavern development area is confined to Halite’s land holding in Preesall.

**M** The development will result in a huge fall in property prices.

**F** The experience of other developments, such as Hornsea, North Yorkshire where there has been an underground gas storage project for 30 years and is similar in surroundings to Preesall, Stalmine and Knott End, would indicate no long-term impact on property prices.

**M** The development will damage the Wyre Way.

**F** There will be a temporary disruption during part of the construction phase but we are committed to being a long term steward of the land and are looking at ways in which to enhance the landscape across our development area, including the Wyre Way.

**M** The recent earthquake in Poulton is proof that the ground in Preesall is unsafe for gas storage.

**F** The Preesall salt body is in an area of low seismic activity. The recent minor earthquake would have no effect on the caverns. However, as with any major development, the design will incorporate best practice to ensure the safety of the caverns in the event of future earthquakes.

**M** The pipeline will be ugly and will destroy the landscape over the River Wyre.

**F** All the pipelines will be buried underground and will not be seen once completed.

**M** This is exactly the same project as was proposed by Canatxx.

**F** We have reviewed feedback from previous applications and made major changes to our proposals. The location of the above-ground infrastructure has been changed significantly. Crucially, the current proposal is approximately 50% of the size of previous proposals, with 19 caverns as opposed to 38 previously.
We know that people have concerns about the impact of our proposed Project on the local environment, particularly about brine discharge on local marine life. Discharging waste brine into the sea is a common, world-wide practice and the Environment Agency has given its permission for us to carry out this activity. Sites at Morecambe Bay and the Wyre Estuary, which are protected at European and national levels because of their valued wildlife habitats, would not be affected.

Details of how we would minimise the effects of our proposed Project on the environment will be included in an Ecological and Landscape Management Plan which will also set out the opportunities for us to improve the existing biodiversity of our site. For example, enhancements to ponds and habitat creation would increase the suitability of the area to support great crested newts; a year-round supply of food for the local hare population would be provided by selection and planting of the right species; and water voles would be helped by ditch improvements.

Feedback from the consultation has also highlighted concerns around traffic and access. In response, we have commissioned a new traffic study to further inform our plans and provide you with more information on the impact of our proposed Project on local road infrastructure. If our application were to be successful, a Construction Environmental Management plan would be implemented in order to protect local people and the local environment from the impact of construction works – this would include ensuring that additional traffic travelling to and from the site would be effectively managed.

We’ve had our consultation so what happens next?

Halite chief executive, Keith Budinger, explains:

“Whilst the formal consultation period has now come to a close there is still much work to be done before our application for a Development Consent Order will be ready to submit to the Infrastructure Planning Commission (IPC). Our priority at the moment is addressing the comments, concerns and suggestions received from members of the local community and statutory consultees, such as Lancashire County Council, Wyre Borough Council and the Health & Safety Executive. Once we are satisfied that we have incorporated the relevant views of the community into the finalised proposals they will be submitted, along with a consultation report, to the IPC.

“The comprehensive report will detail the extent and approach of our consultation along with how and why the feedback received has or has not been taken on board in the final Project proposals. The document will be one of the factors taken into account by the IPC when it decides whether or not Halite has complied with the pre-application consultation requirements which you can read more about at http://infrastructure.independent.gov.uk. At the moment it is too soon to say with certainty when we will be submitting our application but I hope all the documentation will be finalised so we can progress to the next stage before the end of this year.

“We will be sharing and explaining our response to consultation feedback in a range of ways set to include local meetings, drop-in sessions, information in the local media, a special edition of this newsletter and through the Community Liaison Panel which you can read more about on the back page.”

Any questions? We are still listening, please get in touch with your queries.
Senior geologist, Colin Harding, is a director at Mott MacDonald, an international management, engineering and development consulting firm with extensive expertise on planning and delivering major infrastructure projects in the UK and around the world.

Colin has over 30 years of geological expertise on development projects from assessing whether they can get off the ground to detailed design work. He has been leading the extensive geological review of our proposed Project in order to demonstrate that the Fressall salt is suitable for the safe and secure storage of natural gas.

“This is an extremely interesting Project to be a part of,” said Colin, who recently enjoyed meeting with members of the local community at exhibition and presentation events during the consultation. “The geology team working on this Project has a wealth of expertise and we have undertaken very detailed work resulting in a very accurate picture of the area below ground. Two key locations have been identified for cavern development where we know that the salt is strong and its permeability low – these areas are away from existing caverns, historical workings and faults.”

Colin Harding
Senior geologist

An independent Community Liaison Panel (CLP) was formed earlier this year. It offers a great way for representatives of the local community to keep in touch with our plans as they develop and a forum for discussion about our proposed Project.

The CLP also provides a direct mechanism through which the community can pose questions and have them answered by our Project team. So far, requests have been made by the panel for presentations from specialists in safety, geology and the environment. Minutes of previous meetings detailing the discussions that have taken place, copies of presentations and our responses to questions asked by panel members are all available on our website.

The CLP will continue to meet throughout the application process and potentially beyond and members are welcome.

If you would like to nominate yourself, or someone you know, to take part in the initiative please email clp@writeanglepr.co.uk or call 01772 450990.

Brine well collapse

You may well be aware that on Saturday 18 June the wellhead of an old, disused brine well collapsed on our land. We are carrying out a thorough investigation into the reasons why this event occurred and a clean-up operation is underway.

We quickly began working closely and cooperating fully with all the relevant agencies, including the Environment Agency, Lancashire County Council and Wyre Borough Council, in order to mitigate the impact of this incident. We are also carrying out a thorough investigation into the reasons why this event occurred.

Commenting on the incident chief executive, Keith Budinger, said: “Halite is committed to being a good steward of the land in our ownership and we take this responsibility very seriously. We will ensure that we review our ongoing maintenance programme following this event along with any impact on our proposed Project.

“I would like to apologise for the disruption and any worry caused by this unexpected event and assure you that we are taking the necessary measures to minimise the impact of the incident on the local environment.”

He added: “It’s important to point out that this incident occurred in an old brine well which was developed many decades ago. Our proposed cavern development area is away from these historic brine wells and mine workings. If our Project were to go ahead we would create new, purpose-built caverns that would have to comply with the strict guidelines set out by the Health & Safety Executive under the Control of Major Accident Hazards (COMAH) regulations.”
On Saturday 18 June at around 6am, the wellhead of a disused brine well on Halite's land failed, resulting in brine being ejected into the air and the temporary closure of Cemetery Lane and Back Lane.

Halite's chief executive, Keith Budinger and other members of the team were onsite soon afterwards that morning in order to assess the situation and minimise the impact of the event on local surroundings. As a result, swift action was taken to erect safety fencing around the wellhead and begin a clean-up operation.

Halite is committed to being a good and responsible steward of the land in its ownership. With safety and security our priority an immediate and thorough investigation into the causes of the incident was launched and you can read details of the findings inside this issue.

It is important to highlight that the incident happened in an old brine well which was built and constructed many decades ago. Within the land owned by Halite there are over 100 abandoned historic brine wells which require ongoing monitoring and maintenance.

More on pages two and three...

Welcome to a special edition of infocus in which we share with you the findings of our technical assessment into the Brine Well 45 incident which happened on 18 June 2011 and the additional safety and security measures that have been taken as a result.

This issue also includes an update on the important remediation work being undertaken to minimise the impact of the event on the local environment.

I would like to reassure the community that geological survey work carried out following the incident has demonstrated that the cavern is stable and that the cavern roof and cavern floor remain intact and unchanged. Concerns about any future cavern collapse or ground subsidence have therefore been removed and the incident will not affect our Project proposals.

The team is therefore currently preparing the detailed reports and documents that will form our application to the Infrastructure Planning Commission (IPC) which, subject to IPC planning requirements, we expect to submit within the next few weeks.

I hope that you find the information in this issue useful. Our website has further details and information and we would be happy to answer your questions.

Dr John Roberts CBE
Chairman, Halite Energy
What happened next?

We quickly began working closely and cooperating fully with all the relevant agencies including the Environment Agency, Lancashire County Council, Wyre Borough Council and local people, animals and the environment from the impact of the event. Establishment, led by the Environment Agency to protect local authorities, the Environment Agency and other groups on the vitally important incident remediation.

What happened on 18 June?

As soon as it was safe to do so, scaffolding was erected on site in order to gain access to the wellhead. The detailed technical assessment work was carried out when the wellhead had fully depressurised by senior geologist Colin Harding who featured in the last edition of Infocus and is a divisional director at Mott MacDonald - an international management, engineering and development consulting firm. A range of investigation techniques were used including geophysical surveys and sending CCTV cameras down the casing into the cavern.

How and when was the incident investigated?

No. We have compared the results of CCTV and physical and geophysical surveys completed after the incident with high quality data gathered from a sonar survey of the same brine well in June 2010. This work shows that the cavern is stable and the cavern floor and roof remain intact. Cavern instability neither caused, nor was triggered by, the incident. There is no reason to be concerned for any future cavern collapse or ground subsidence to occur in the adjacent area.

What did cause the event?

Our investigations show that a short section of borehole casing was distorted and ruptured in an airlock in the brine well 190 metres below ground. This caused air and brine to rise up under pressure to the wellhead. However, the wellhead flange (the disc-shaped top which secures the wellhead) was able to withstand the increase in pressure. Highly pressurised brine and air travelled back down the gap that exists between the inner and outer casings and then back to the ground surface around the outside of the outer casing.

Why were the Police involved?

The primary cause of the incident has been identified as ruptured casing at depth, which was most likely damaged during installation or operation many decades ago. However, this in itself would not have caused the incident. Forensic experts identified information which was consistent with third party interference being the cause of the damage at the wellhead. Safety and security remain our number one priority and any information suggesting a deliberate attempt to cause a dangerous incident of this kind must be treated extremely seriously. The board of Halite felt it right, proper and the responsible course of action to share information that came to light as a result of our investigations with the Police. The strength of the information resulted in a case being opened and an investigation being carried out. The Police have stated that they have found no verifiable evidence either way to indicate whether a crime has or has not been committed but, should further information come to light, the case will be re-opened.

What measures have you taken to stop this from happening again?

Our monitoring and maintenance programme has been thoroughly reviewed and additional activity undertaken which includes completing a full risk assessment on all existing brine wells.

Onsite security has been stepped up to provide visible reassurance to the local community of our commitment to site safety and safety. A 24-hour ranger patrol has been introduced to monitor land in our ownership, paying particular attention to areas with wellheads from historic workings.

What environmental and technical work has been carried out?

Environment and technical work has been ongoing since the red wellhead casing was ejected from the area immediately surrounding Brine Well 45 in what is commonly referred to a ‘blow out’. The brine mixed with the soil around the wellhead casing and flowed downhill to Back Lane causing the area to flood and the lane to be closed. The air and brine flow eroded the soil surrounding the casing causing a hole to develop which then filled with brine. At first, air bubbled vigorously to light, the case will be re-opened. The Police have stated that they have found no verifiable evidence either way to indicate whether a crime has or has not been committed but, should further information come to light, the case will be re-opened.

Further information, including a full technical assessment report and summary document, is available from our website at www.halite-energy.co.uk.
IPC application update

Following the completion of our public consultation, Halite’s team has been preparing the final Project proposals ready for submission to the Infrastructure Planning Commission (IPC). We expect to make our application for a Development Consent Order to the IPC in the next few weeks.

Once the application has been submitted the IPC will have 28 days to decide whether or not to accept it. The decision will be based on the information provided by Halite including the adequacy of the public consultation undertaken and quality of supporting documents on issues such as the environment. If the application is accepted, people will then have the opportunity to submit their views on the proposals to the IPC.

If you want to find out more about the process visit the IPC website at www.independent.gov.uk/infrastructure.

Keep up to date

There are a number of ways for you to keep up-to-date with our plans to develop an Underground Natural Gas Storage Facility at Preesall. Our regularly updated website features all the latest Halite news and gives you the opportunity to post questions or comments in an online forum. You can also view minutes of Halite’s Community Liaison Panel (CLP) meetings.

The CLP was formed in April this year and provides a direct way for the community to ask questions and request information from Halite’s Project team. The group meets on a monthly basis. If you would like to nominate yourself, or someone you know to take part in the CLP please email clp@writeanglepr.co.uk or call 01772 450990.
5th May 2011

Dear

You may be aware that Halite Energy is developing plans for an Underground Natural Gas Storage Facility at Preesall. An application for a Development Consent Order will be submitted to the Infrastructure Planning Commission - the independent body that handles planning applications of national significance - following an extensive community consultation which is running from 4 April until 27 May. During this time we will be sharing the details of our proposed Project with people in the local area and asking for feedback.

We are keen for young people living in the area around the site of our proposed Project to have the opportunity to learn about our plans, have their questions answered and share their comments with us. With that in mind we have prepared a resource sheet which is available to download from the consultation area of our website www.halite-energy.co.uk. Being sensitive to the issues surrounding our plans we have not included any reference in this material to our proposed Project. Rather, we have provided some information and suggested activities relating to the unique rock salt deposits in the local area which you may find useful if you discuss the local geology with pupils.

A team of geological and environmental experts are available to present information, answer any questions and feed in to any activity surrounding local environment, geology or the proposed Project should that be required. I would like to stress that by offering to meet with students and sharing our knowledge of, for example, the geology of the Preesall site that gives it the potential to store natural gas, we would not be seeking to influence opinions – our aim is to facilitate discussion and provide answers to any questions for all members of the school community who are interested.

We would be very pleased to provide you and/or other members of staff with further information so if you have any queries please don’t hesitate to get in touch by calling me on 01772 672 244, emailing keith.budinger@halite.net or writing to me at the above address.

Yours sincerely

Keith Budinger
Chief Executive
Halite Energy
5th May 2011

Dear

You may be aware that Halite Energy is developing plans for an Underground Natural Gas Storage Facility at Preeass. An application for a Development Consent Order will be submitted to the Infrastructure Planning Commission - the independent body that handles planning applications of national significance - following an extensive community consultation which is running from 4 April until 27 May. During this time we will be sharing the details of our proposed Project with people in the local area and asking for feedback.

We are keen for young people living in the area around the site of our proposed Project to have the opportunity to learn about our plans, have their questions answered and share their comments with us. With that in mind we have prepared a resource sheet linking to QCA unit 3D on Rocks and Soil which, along with full details of our proposals and consultation, is available to download from the consultation area of our website www.halite-energy.co.uk. Being sensitive to the issues surrounding our plans we have not included any reference in this material to our proposed Project. Rather, we have provided some information and suggested activities relating to the unique rock salt deposits in the local area which you may find useful if you discuss the local geology with pupils.

A team of geological and environmental experts are available to present information, answer any questions and feed in to any activity surrounding local environment, geology or the proposed Project should that be required. I would like to stress that by offering to meet with students and sharing our knowledge of, for example, the geology of the Preeass site that gives it the potential to store natural gas, we would not be seeking to influence opinions – our aim is to facilitate discussion and provide answers to any questions for all members of the school community who are interested.

We would be very pleased to provide you and/or other members of staff with further information so if you have any queries please don’t hesitate to get in touch by calling me on 01772 672 244, emailing keith.budinger@halite.net or writing to me at the above address.

Yours sincerely

KEITH BUDINGER
Chief Executive
Halite Energy
## High Schools

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<thead>
<tr>
<th>School Name</th>
<th>Address</th>
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<tr>
<td>Highfield High School</td>
<td>Highfield Road, Blackpool, FY4 3JZ</td>
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<td>Millfield Science &amp; Performing Arts College</td>
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<td>Arnold School</td>
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## Primary Schools

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<td>Red Marsh Special School, Holly Rd</td>
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<tr>
<td>St Cuthberts Catholic Primary School, Lightwood Avenue</td>
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Did you know?

Deep underground where we can’t see, the earth is made up of different sorts of rock with different characteristics. The geology of the Preesall area is unique. There are large deposits of rock salt around 300 metres below the surface which were made millions of years ago. Rock salt deposits are found in places across the world which were once covered by seawater like the Wyre Estuary. Salt crystals were left behind when the water evaporated creating salt beds which are used for a range of purposes today. For example, rock salt is mined and used to melt snow and ice in the winter. Underground caverns can also be created in rock salt and used to store gas.

Design a leaflet which explains our unique local area to people who live in another part of Britain. Organise and write facts so that they are easy to find and understand.

Now write a few sentences why you have chosen your design.

Turn over for a word search where you will need to find words linked to rocks and their various characteristics.
Find these words:

gology
metamorphic
hard
heavy
igneous
impermeable
mudstone
permeable
Preeall
Rock Salt
sedimentary
shiny
smooth
waterproof
wyre estuary
Deep underground where we can’t see, the earth is made up of different sorts of rock with different characteristics. The geology of the Preesall area is unique. There are large deposits of rock salt around 300 metres below the surface which were made millions of years ago. Rock salt deposits are found in places across the world which were once covered by seawater like the Wyre Estuary. Salt crystals were left behind when the water evaporated creating salt beds which are used for a range of purposes today. For example, rock salt is mined and used to melt snow and ice in the winter. Underground caverns can also be created in rock salt and used to store gas.

Design a leaflet which explains our unique local area to people who live in another part of Britain. Organise and write facts so that they are easy to find and understand.

**remember**

think about your audience, include short, informative sentence and use diagrams to bring the information to life.

Now write a few sentences why you have chosen your design.

...............................................................................................................................................
...............................................................................................................................................

Turn over for a word search where you will need to find words linked to rocks and their various characteristics.
March 10th 2011

Dear Ms Shuttleworth,

As Halite Energy’s Community Liaison Co-ordinator, I am writing to introduce myself and give your organization members the opportunity to raise any questions or concerns they may have regarding the proposed storage of gas in underground caverns at Preesall.

We are fully committed to listening to your views and giving you every opportunity to engage in the consultation process and would therefore welcome the opportunity of meeting with your members.

I am available to meet your members to answer questions or you are welcome to attend one of our public exhibitions taking place over the next few months. Information on all aspects of the project is also available on our website (www.halite-energy.co.uk) with the facility to post any questions or comments on the project that you may have.

I look forward to hearing from you soon.

Kind regards

Deborah Morris
Community Liaison Co-ordinator
<table>
<thead>
<tr>
<th>Community Group or Organisation Name</th>
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<td><strong>Action Groups</strong></td>
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<td><strong>General</strong></td>
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<td>Wyre Tourism Association</td>
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<td>Life Long Learners</td>
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<td>Play Reading Group</td>
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<td>Pilling &amp; District Historical Society</td>
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<td><strong>Professional Groups</strong></td>
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<td>IVC Club</td>
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<td><strong>Rotary</strong></td>
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<td>Rotary Club of Garstang &amp; Wyre</td>
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<td><strong>Seniors Groups</strong></td>
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<td>Wyre Seniors Forum</td>
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<td>Probus Club Over Wyre</td>
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<td><strong>Sports Cubs/Assoc.</strong></td>
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<td>Preesall Bowling Club</td>
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<td>Knott End Golf Club</td>
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## Walking Groups
- Fleetwood & Wyre Wanderers Walking Club
- Fylde Ramblers Association
- National Ramblers Association
- Over Wyre Walkers
- The Long Distance Walkers Association
- Thornton Walking Club
- Wyre Ramblers Association
- Over Wyre Hamblers

## Womens Groups
- Association of Wrens
- Hambleton Womens Institute
- Pilling Womens Institute
- Womens Guild and Ladies Forum
- Stalmine W.I Group
- Garstang Pheonix W.I.

## Youth Groups
- Preesall & Knott End Youth Club
- Rural Youth Action Group - Preesall

## Fishing Groups
- Alkali (with Preesall)
- North West Fisheries
We are listening – your views count
Halite Energy Group is seeking permission for an Underground Natural Gas Storage Facility at Preesall, Lancashire. We recently undertook a formal public consultation to gather valuable feedback on our proposed Project and many members of the local community took part.

A report is now available which provides interim feedback to the community on the consultation process in advance of the publication of a consultation report later this year.

If you would like to read this feedback report there are a number of ways to request a copy:

• View and download the report from our website at www.halite-energy.co.uk

• Email us at community@halite.net

• Call us on 01772 672 244

• Write to us at Halite Energy Group, Freepost RSRC-UETY-CHSU, Unit 5, St Georges Court, St Georges Park, Kirkham, Preston PR4 2EF.
We are listening – your views count

To view all our consultation documents you can visit our website, or get in touch by phone, email or post.
Halite Energy Group is seeking permission for an Underground Gas Storage Facility at Preesall, Lancashire.

You are welcome to **drop in to one of the exhibitions** at your convenience. There will be a chance to **meet our Project team**, raise any comments or concerns with them and view a range of plans, maps and information around the Project.

**Unable to attend the exhibitions?**

**We still want to hear your views.**

You can download a copy of our questionnaire from our website or post a question online at [www.halite-energy.co.uk](http://www.halite-energy.co.uk)

If you do not have access to the internet you can request a copy of the questionnaire by calling us on 01772 672 244

**Write to us at:**

**Freepost RSRC-UETY-CHSU**

Halite Energy Group  
Unit 5, St Georges Court  
St Georges Park, Kirkham  
Preston PR4 2EF
Owner ‘optimistic’ fire pub will re-open

Rising from the ashes

THE owner of an arson-ravaged pub is optimistic the landmark will not have to be demolished.

Terry Pedersen, owner of the Warden’s in Hambleton, says the community has been left devastated by the fire which ripped through the pub in the early hours of last Sunday.

He said: “We are hoping it won’t have to be demolished. We are optimistic.”

“It would be a sad loss to the Wyre district. It is my local, where I was a young lad and a lot of people are saddened by what’s happened.”

“We’ve had lots of supportive feedback from people.”

Thirty-foot flames could be seen shooting out of the roof of the building on Warden’s Lane around 1am on Sunday.

Around 20 firefighters from Egremont, Fleetwood and Presall battled the blaze and remained at the scene for 12 hours.

It is thought the blaze broke out in the first floor and spread to the roof of the pub, which housed one of the oldest in the Fylde coast’s largest communities in 2007.

Witnesses from the nearby caravans park said they were relieved the fire had not spread further.

Peter Gilmore, 47, said he spotted the blaze around 1.30am.

He said: “Glass casisters are stored nearby so we’re lucky it didn’t spread. The wind was blowing it in the other direction.”

Mr Pedersen initially estimated there could be around £500,000 of damage.

He added: “As we are in the hands of others, unfortunately this isn’t going to be a quick process. We have got a lot of specialists on site, we have to wait to see what the insurers and engineers have to say.”

HOPES: Warden’s in Hambleton after the fire and (inset) owner Terry Pedersen

When she realised she had been conned she visited other shops in the town to truth finding two shops using counterfeit £20 notes on Wednesday.

Avvis Jones of The Coffee Pot, Church Street, fell for the ruse, accepting the bogus note in exchange for a £20 coin of the pound.

A GARSTANG cafe proprietor alerted shopkeepers in the town to a youth trying to con them using counterfeit £20 notes on Wednesday.

Avvis Jones of The Coffee Pot, Church Street, fell for the ruse, accepting the bogus note in exchange for a £20 coin of the pound.

Counterfeit notes alert is sounded

Gas plan on view

HALITE Energy, which wants to create a multi-million pound gas store under the River Wyre near Presall, is to launch its series of public exhibitions at Stalmine on May 10.

The company wants to hear feedback from people whose views will influence the proposals ahead of Halite’s submission to the Infrastructure Planning Commission later this year.

Halite has written to nearly 14,000 households in the area surrounding the proposals to publicise the series of six exhibitions to be held at Stalmine Village Hall (May 10), St Oswald’s Parish Hall, Presall (May 13 and 14), Pilling Memorial Hall (May 19) and Thornton Little Theatre (May 23).

Visitors will have the opportunity to view a range of maps, plans and information around the project, meet Halite’s project team, and voice their views.

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Halite has written to nearly 14,000 households in the area surrounding the proposals to publicise the series of six exhibitions to be held at Stalmine Village Hall (May 10), St Oswald’s Parish Hall, Presall (May 13 and 14), Pilling Memorial Hall (May 19) and Thornton Little Theatre (May 23).

Visitors will have the opportunity to view a range of maps, plans and information around the project, meet Halite’s project team, and voice their views.

Halite Energy Group is seeking permission for an Underground Natural Gas Storage Facility at Presall, Lancashire.

GLORIOUS sunshine helped to make a Classic Emergency Vehicles Show at Rawcliffe Hall, Out Rawcliffe, a great success over the bank holiday weekend.

Among the attractions at the event were displays of medieval jouster by the Knights of the Damned team, collections of classic cars, dogs and human agility displays and fairground fun for all ages.

FAMILY FUN: Kimberley Quegge with a vintage MG B (top right); jousting and dog agility displays and fairground fun being enjoyed by Nigayle Gayle and Molly Baldwin.

We want to hear your views on our proposals and invite you to attend one of a series of exhibitions:

Stalmine Village Hall
Saturday, 13th May, 10am - 7pm

St Oswald’s Church Hall, Knot End
Friday, 19th May, 11am - 7pm
Saturday, 20th May, 10am - 4pm

North Euston Hotel, Fleetwood
Thursday, 17th May, 10am - 7pm

Pilling Memorial Hall
Thursday, 24th May, 10am - 7pm

Thornton Little Theatre
Monday, 28th May, 10am - 7pm

*You require transport to any of the above locations, please call 01772 572 244

Write to us at:
Halite Energy Group
Freepost RSOC-UTSY-CHSU
Unit 5, St Georges Court
St Georges Park, Kirkham
Preston PR4 2EF

You are welcome to drop in to one of the exhibitions at your convenience. There will be a chance to meet our project team, raise any comments or concerns with them and view a range of maps, plans and information around the Project.

Unable to attend the exhibitions? We still want to hear your views.

You can download a copy of our questionnaire from our website or post a question online at www.halite-energy.co.uk

If you do not have access to the internet you can request a copy of the questionnaire by calling us on 01772 572 244
PENSIONERS could be hit by the axing of concessionary fares on the Fleetwood to Knott End ferry. Lancashire County Council is looking at the free journey on the ferry as it also assesses community transport which helps the elderly and immobile to get to hospitals and other destinations.

The council could make a big saving if it cut the free ferry journey for pensioners. In the first nine months of the last financial year 45 per cent of the 55,905 journeys were concessions, amounting to £37,756.

The County Council has said it will foot the bill in partnership with Wyre until the end of June but the situation could change after that.

Among those concerned about the possible loss of free travel are pensioners Roy and Brenda Pickup of Wyre and Knott End.

Mr Pickup said: “It’s good to be able to get over to Fleetwood because while we have a library here there is another one there, we can get to the bank and use things like the market. If we have to pay £4 for a return journey for the two of us I might as well walk the car and drive round to Fleetwood.”

Responsibility for concessionary fares was transferred from district councils to the county last month, but central government slashed the budget by £23.5m to £17m.

Andrew Varley, information and concessionary travel manager at County, said: “The leaders of the County and district councils have chosen to maintain current funding for community transport and a number of other services for a further three months from April 1. In Wyre this includes the Knott End Ferry which has also received funding for a further three months to give passengers and the operator a period of stability while we work with them on a sustainable business model for the future.”

Fears over Knott End ferry fares
Rural pylon warning

FEARS that the attractive rural landscape of the Bowland Fells, the north Pennines and the Lake District will be marred by giant new pylons have been voiced by CXP Reid Hind, a leading Ribble Valley councillor.

But the power company planning the ambitious project to link proposed new nuclear power stations at Sellafield and Heysham into the national grid system says it has been in consultation with the area's councils and organisations for some time.

"We should make representations in response to the proposals and that is what we should do," said Mr Hind. "It is very important for us to look after the feedback of the local community in response to our proposals and I would urge anyone interested in finding out more and having their say not to miss the opportunity to do so.

Rural sessions

Blood donor sessions are being held in the Garstang and Longridge area next week.

Next Monday, May 23, at Garstang Country Hotel and Golf Club there will be sessions between 2pm and 4pm and 7pm and 9pm, while on Tuesday May 24, there will be sessions at the Civic Hall at Willes Park Lane, Longridge, between 2pm and 5pm and 2pm to 5pm.

Report on behaviour

LANCASHIRE children and young people lead the way in good behaviour at school.

Latest research shows that Ofsted inspectors who have visited the county's schools have been impressed with the courtesy, consideration, behaviour, and respect shown by primary and secondary pupils alike.

And education bosses are proud that at the end of 2010, not one of the county's 230 primary or secondary schools was given "inadequate" rating for behaviour in its most recent Ofsted report.

Standards of behaviour were the subject of one of the government's regular statistical reports earlier this month.

Halite urges local people to give views

Halite Energy Group is seeking permission for an underground natural gas storage facility at Presell, Lancashire.

You are welcome to drop in in to one of the exhibitions at your convenience. There will be a chance to meet our Project team, raise any comments or concerns with them and view a range of plans, maps and information around the Project.

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If you do not have access to the internet you can request a copy of the questionnaire by calling us on 01772 672 246 (write to us at Halite Energy Group, Freeport, RSC-UEGY-CHSU, Unit 5, St George Court, St Georges Park, Kirkham, Preston PR4 2EF)

We are listening – your views count

You can visit all of our consultation documents on our website, or get in touch by phone, email or post.
Pensioner injured in security van collision

AN elderly holidaymaker was left with serious injuries after a collision with a security van.

Police are now appealing for witnesses following the incident outside B&M Bargains in Cleveleys at 11.30pm yesterday.

The G4S security van collided with the 80-year-old outside the store at the junction of Victoria Road and Princess Road, causing the street to be closed for four hours.

Sgt Dave Hogarth, of Lancashire Police, said, “I appeal for anyone who witnessed what happened to come forward.

“We’re keen to establish exactly what happened and would ask for anyone who saw the incident to get in touch.

“We would also like to speak to the man who helped the lady immediately after the incident.

“An elderly victim from Stoke-On-Trent received treatment at the scene for head and leg injuries. She was later taken to Blackpool Victoria Hospital where she is said to be in a stable condition.

“Princess Road was closed while accident investigators carried out their work and traffic had to be diverted. Officers said a good samaritan, who helped the elderly woman immediately after the incident, went to nearby Cleveleys police station to wash his hands but left without speaking to officers.

TRAFFIC DRAMA: Police at the scene of the accident at the junction of Victoria Road and Princess Road in Cleveleys.

By CARLA GEORGE

Anyone with any information is asked to call police on 0451 25 36 46 or call Crimestoppers on 0800 55 5111.

A G4S spokesman confirmed one of their vans was involved in the incident.

He added: “We can confirm an accident involving one of our vehicles and a member of the public occurred at the junction of Victoria Road West and Princess Road in Cleveleys, sadly resulting in an injury to the member of the public.

“We are conducting our own internal investigations into the circumstances of the incident and assisting police inquiries.”

Parents get school choice

MOSY Pylde and Wyre children will be starting at their preferred primary school in September.

Figures released by Lancashire County Council show just under 90 per cent of new starters for a place at one of their three choices. And more than 90 per cent of the 13,120 pupils were awarded their first choice.

Bob Stott (pictured), Lancashire County Council’s director for universal and prevention services, said: “Starting school is a big event for children and the high number of preferences met reflects the consistently high standard of school provision in Lancashire. With almost 500 primary schools, it is inevitable there will be a few disappointments, but it is very gratifying the number getting a preferred place is so high.” For information on appeals call 08450 288112.

Coastal clean-up request

Volunteers are needed to help carry out a coastal clean-up from Blackpool to St Annes.

The ‘coastal boat sweep’ will take place on Wednesday May 25 between Squires Gate and Fairhaven from 10am to 4pm.

St Annes community best manager PC Kirsty Bargh said: “The day will involve litter picking, conservation and environmental work and graffiti removal. It will be a general blitz, which will hopefully help address the fires and anti-social behaviour which goes on in the sand-dunes.”

Volunteers are asked to gather in the Highbury Road car park. Contact PC Bargh on 01253 606897 or 299853.

Wall damage

A GARDEN wall was kicked over by vandals at a property in Fleetwood.

The two-foot high fence on Northway was damaged between 9pm on Tuesday April 26 and 12pm the following day. The wall was left standing at 90 degrees after vandals are thought to have kicked it during the night.

in brief

Wall damage

A GARDEN wall was kicked over by vandals at a property in Fleetwood.

The two-foot high fence on Northway was damaged between 9pm on Tuesday April 26 and 12pm the following day. The wall was left standing at 90 degrees after vandals are thought to have kicked it during the night.

Apologies for relatives

AN appeal has been made to trace the relatives of a man who has died.

Denis Thorburn, who was 79 and lived in Havers Side Lane died of natural causes on April 30 at Blackpool Victoria Hospital.

His sister has been traced but Mr Thorburn is believed to have children living in the area.

Anybody with information is asked to contact the hospital’s general office on (01253) 303723.

Halite Energy Group is seeking permission for an Underground Gas Storage Facility at Preeass, Lancashire.

We want to hear your views on our proposals and invite you to attend one of a series of exhibitions:

- Stalmine Village Hall
  Tuesday 10th May 10am – 7pm
- St Oswald’s Church Hall, Knott End
  Friday 13th May 10am – 7pm
- North Euxton Hotel, Fleetwood
  Tuesday 17th May 10am – 4pm
- Pilling Memorial Hall
  Thursday 19th May 10am – 7pm
- Thornton Little Theatre
  Monday 23rd May 10am – 7pm

You are welcome to drop in to one of the exhibitions at your convenience, but there will be a chance to meet our Project Team, raise any comments or concerns with them and view a range of plans, maps and information around the Project.

Unable to attend the exhibitions?
We still want to hear your views.

You can download a copy of our questionnaire from our website or post a question online at www.halite-energy.co.uk

If you do not have access to the internet you can request a copy of the questionnaire by calling us on 01772 672264.

Write to us at:
Halite Energy Group
Freepost BRIC-LETY-CHSL
Unit 5, St Georges Court
St Georges Park, Kirkham
Preston PR4 2EF

We are listening – your views count.
To view all our consultation documents you can visit our website, or get in touch by phone, email or post.
The Planning (Hazardous Substances) Act 1990, Section 12 (2B)

NOTICE OF PROPOSED APPLICATION FOR DEEMED HAZARDOUS SUBSTANCE CONSENT

I give notice that Halite Energy Group Limited (“Halite”) proposes to apply to the Infrastructure Planning Commission (“IPC”) for a direction that hazardous substances consent be deemed to be granted on the making of an order granting development consent (“DCO”) for the proposed underground natural gas storage facility at Preesall, Lancashire (the “Project”). Halite is to seek this direction deeming hazardous substances consent as part of its application for a DCO for the Project.

Prior to the application for deemed hazardous substances consent being made, Halite is seeking the views of appropriate organisations, authorities and the public in relation to it. Members of the public may inspect information relating to the proposed hazardous substances consent application at Halite’s offices at Unit 5, St George’s Court, St George’s Park, Kirkham, Preston, PR4 2EF during all reasonable hours until the 3rd October 2011 and online at www.halite-energy.co.uk.

Anyone who wishes to make representations about this application should write to:
Brian Stanley, Project Director at Halite, Unit 5, St George’s Court, St George’s Park, Kirkham, Preston, PR4 2EF by 3rd October 2011.
Halite Energy Group is seeking permission for an Underground Gas Storage Facility at Preesall, Lancashire.

You are welcome to drop in to one of the exhibitions at your convenience. There will be a chance to meet our Project team, raise any comments or concerns with them and view a range of plans, maps and information around the Project.

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Stalmine Village Hall
Tuesday 10th May 10am – 7pm

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North Euston Hotel, Fleetwood
Tuesday 17th May 10am – 7pm

Pilling Memorial Hall
Thursday 19th May 10am – 7pm

Thornton Little Theatre
Monday 23rd May 10am – 7pm
Your views are important to us

Halite Energy Group is seeking permission for an Underground Gas Storage Facility at Preesall, Lancashire.

Our Community Liaison Co-ordinator, Debbie Morris, is holding a series of drop-in sessions where you will be able to find out more about our Project plans and how to have your say.

We want to hear your views on our proposals. You are invited to attend our next drop-in event to find out more:

Freepost RSRC-UETY-CHSU
Halite Energy Group
Unit 5, St Georges Court
St Georges Park, Kirkham
Preston PR4 2EF

t: 01772 672 244
e: community@halite.net
www.halite-energy.co.uk

We are listening – your views count
To view all our consultation documents you can visit our website, or get in touch by phone, email or post.
Proposed Underground Natural Gas Storage Facility, Preesall, Lancashire

Keith Budinger, Chief Executive, Halite Energy Group
Today’s presentation

• Who we are
• Need for underground gas storage
• Why Preesall?
• Our Project
• Creating caverns in salt
• Geology
• Safety
• Environment
• What next in the planning process
Halite Management Team

• Keith Budinger
• John Roberts CBE
Need

• Nationally significant infrastructure project
• Supports renewable energy; wind and solar
• Fast, flexible storage
• Increases UK’s total gas storage capacity by 15-20%
Why Preesall?

• One of last few remaining salt bodies in the UK that has not been developed
• Shallow salt deposits, allow fast cycle storage
• Proximity to seawater for cavern washing and brine discharge
• Close to the National Transmission System (NTS)
Our Project

- Create up to 19 purpose-built caverns
- Store 900 million cubic metres of natural gas (600 million cubic metres working gas)
- Above ground infrastructure
- Brine discharge pipeline
- Electricity pipeline
Above ground infrastructure

- Gas compressor compound
- Wellhead compounds
- Booster pump station
- Seawater pump station
- Security and support facility
• Booster Pump Station
• Wellhead Compounds
• Seawater Pump Station
• Gas Compressor Compound
Brine discharge pipeline

- Seawater from Fleetwood Fish Dock to create caverns
- Brine returned to Irish Sea by pipeline 2.3km offshore
- Permission granted by the Environment Agency to discharge brine
Creating caverns in salt

• Proven technology used across the world
• Solution mining process creates caverns using seawater
• Typical cavern is tear-shaped
• 1,000 feet (300 metres) below ground
• Up to 19 caverns, taking eight years to complete
• All work undertaken to comply with strict guidelines of Health & Safety Executive
Geology

- Extensive studies and testing of salt body to determine suitable areas for storage
- Cavern development area is away from existing caverns, historical workings and faults
- Studies have demonstrated low permeability of salt
Safety

- Safety is paramount to Halite
- Quantitative Risk Assessment to look at foreseeable risks
- Risk of fatality is less than one in 100 million per year – five times less likely than fatality by lightning
- Work with relevant authorities – emergency services, LCC, HSE to create full safety management plan
Environment

- Preliminary Environmental Information report – positive and negative impacts
- Ecological and Landscape Management Plan
- Work with relevant authorities – RSPB, Environment Agency
- Stewardship of Halite’s land, long-term maintenance plan
How our proposals are different

• Thorough review of feedback in response to previous applications
• Extensive geological work to demonstrate the suitability of the Preesall salt for gas storage
• Approximately 50% of Canatxx proposal
• Condensed cavern development area and above ground infrastructure
What happens next?

• Prepare consultation report – documenting feedback from consultation period
• Revise plans following consultation
• Submit application to IPC
• IPC has 28 days to accept/reject application
• If accepted, three month pre-examination period
• Six month enquiry stage
• Final recommendation made by IPC commissioners
Feedback

• We want to hear your feedback
• Please fill in a questionnaire to let us know what you think
Keeping up to date with the Project

• Get involved with the Community Liaison Panel
• Visit our website:  
  www.halite-energy.co.uk
• Visit the IPC website:  
  http://infrastructure.independent.gov.uk
Thank-you for listening
Halite Energy Group has published a technical assessment report into the causes of the brine well ‘blow out’ in Preesall on 18 June 2011.

You are invited to attend a presentation by Halite’s Project team to discuss the findings of this report and have your questions answered.

**Date:** Wednesday 19 October  **Time:** 7pm  
**Venue:** Wyre Villa Football Club, Hall Gate Park  
Hall Gate Lane, Stalmine FY6 0LA

To register for the event please call us on **01772 672 244**  
or email us at **community@halite.net**

There are a number of ways to access the report, information about the incident and details of Halite’s proposed Underground Natural Gas Storage Facility at Preesall.

**Visit:** [www.halite-energy.co.uk](http://www.halite-energy.co.uk)  
**Email:** community@halite.net  
**Call us on:** 01772 672 244  
**Write to us at:** Halite Energy Group, Freepost RSRC-UETY-CHSU  
Unit 5, St Georges Court, St Georges Park, Kirkham, Preston PR4 2EF
Brine Well 45 Incident

Keith Budinger, Chief Executive, Halite Energy Group
Tonight’s Presentation

• What happened on 18 June 2011
• How and when the incident was investigated
• Environmental remediation
• Safety and Security
• Police Involvement
• Health & Safety
• Impact on proposed Project
• Keeping in touch and up to date
• Questions
What happened on 18 June

- Legacy of historic brine wells
- Incident
  - Brine and air ejected from area surrounding Brine Well 45
  - Brine mixed with soil around casing and flowed downhill
  - Back Lane flooded and closed
  - Soil erosion caused void to develop which filled with brine
  - After initial vigorous bubbling air issuing at 9pm
Immediate Responses

- Safety first
- Emergency mitigation and management
- Geological and environmental consultants on site
- Close working and cooperation with relevant agencies
- Investigation into incident causes
Technical Assessment

• Safety a priority
• Depressurised well head
• Scaffolding erected
• Geological investigations led by Halite’s geology consultants, Mott MacDonald
• Geophysical surveys and CCTV
North - South Section

- Firm Brown Fissured Very Silty Clay with Gravel
- Stiff Grey Silty Clay with Gravel
- Assumed disturbed ground

halite
energy group
Investigations and Causes

- Mudstone
- Salt
- Air lock 22 bar
- Brine
- 150
- 190
- 214
- 220
Investigations and Causes
Figure 1. Composite Geophysical Log

[Graph showing depth and geophysical measurements with various curves and markers.]
Investigations and Causes
10” Lining Casing

14” Drive Casing

Annulus
Technical Assessment

BYW45
Prior To Blow Out

BYW45
During Blow Out

BYW45
After Blow Out
Technical Assessment

1. No bubbles observed @ 2110 18.06, therefore $P_{air} < P_{water}$ with water level 1m BGL.
2. Bubbles observed with water level 4m BGL, therefore $P_{air} > P_{water}$.

Conclusion: Break in casing is between 2.1m and 2.4m depth.

1 bar = 100kPa
Environmental Work

- Response group
- Soil scientist and ecologists analysing samples
- Working with Environment Agency and local authorities on long-term strategy
- Remediation measures agreed
- Area will be returned to pre-incident state
Environmental Work

Lined collection pit for brine sludge. Once water has evaporated dried waste to be taken to a Licensed Tip.

- BW46
- BW45
- BW47
- BW78
- BW98

Temporary trench and pit excavated as an emergency measure to divert flow off Back Lane. Accumulated sludge transferred to a collection pit and excavation back-filled.

- Spils in affected part of field characterised and sampled
- 3 distinct horizons sampled to a depth of 800mm

Small area of affected area assessed and sampled.

Spils in area affected assessed and sampled a distinct horizon sampled to a depth of 800mm

- Area by sinking trenches affected -samples taken

NORTH
Police Involvement

- Safety and security number one priority
- Suspected third party interference
- Circumstantial evidence
Police Involvement

- Forensic evidence
- Case opened by Police on 26 July 2011
- Investigation could be re-opened
Health & Safety

- Duties on employers towards people other than their employees

Section 3 of the Health and Safety at Work etc Act 1974 – HSE Policy

“The purposes of the HSW Act include protecting people other than those at work from risks to their health and safety arising out of in connection with the activities of people at work.”

- Legal responsibilities

A director can be prosecuted under the HSW Act via section 27
• Corporate manslaughter and corporate homicide

Under the ‘Corporate Manslaughter and Corporate Homicide’ (published by Home Office in July ’07) and organisation will be guilty of this offence if the way in which activities are managed or organised:

- Causes a person’s death and
- Amounts to a gross breach of relevant duty of care owed by the organisation to the deceased
Timeline

• 18 June 2011  Incident Occurred
• 29 June 2011  Scaffolding erected
• 01 July 2011  Initial investigation on part of wellhead
• 06 July 2011  Full and safe access to wellhead possible
• 18 July 2011  Wellhead fully depressurised and start of detailed technical assessment
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 July 2011</td>
<td>Interim technical assessment received</td>
</tr>
<tr>
<td>19 July 2011</td>
<td>Halite board meeting</td>
</tr>
<tr>
<td>21 July 2011</td>
<td>Contacted Police</td>
</tr>
<tr>
<td>26 July 2011</td>
<td>Chairman and CEO meet Police</td>
</tr>
<tr>
<td>26 July 2011</td>
<td>Notification that investigation opened</td>
</tr>
<tr>
<td>03 August 2011</td>
<td>Crime Reference no. received</td>
</tr>
<tr>
<td>14 Sept 2011</td>
<td>Debrief meeting with Police</td>
</tr>
</tbody>
</table>
• 26 Sept 2011  Summary of technical assessment report published
• 30 Sept 2011  Full report published
• W/c 03 Oct 2011 Special edition newsletter delivered to almost 14,000 homes
Safety and Security

• Replacement of well pipe top
• Cavern re-filled to restore pressure
• Fill annulus with grout
• Backfill caisson with concrete
• Installation of new well head
Safety and Security

- Strengthening safety and security
- Emergency response plan
- 24-hour security ranger patrol
- Review of monitoring and maintenance programme
- Full risk assessment of each wellhead
Safety and Security

• Commitment to remediation
• Trespassers
Impact on Proposed Project

- Mechanical **not** geological
- Cavern at Brine Well 45 is stable
- No concerns around future cavern collapse or ground subsidence in adjacent area
- No impact on proposed Project
- Application to the Infrastructure Planning Commission (IPC) – October 2011
Professional Team

John Roberts CBE, Chairman
United Utilities, Manweb.

David Gray, Non-Exec Director
Ofgem, CAA, HSBC, Defra, OfWat.

Keith Budinger, Chief Executive
British Gas, United Utilities, Nicor Gas.
Keeping up to date with the Project

• Consultation feedback appreciated

• Post application communication
  o Community Liaison Panel
  o www.halite-energy.co.uk
Thank-you for listening

Questions
Appendix C

Media Relations

- Press Releases
- Media Statements re: Brine Well 45
- Table of Press Releases Issued and Coverage Achieved
Press release

For immediate release

27 July 2010

Plans for Proposed Preesall Gas Storage Facility Announced

The next steps in the proposed development of an underground gas storage facility at the Preesall salt field were announced today (27.07.2010).

The company behind the project, Halite Energy Group Limited (‘Halite Energy’, previously known as Canatxx), said that it will not appeal against Lancashire County Council’s decision to turn down the planning application in January this year, but stated that it is preparing a modified scheme that will be submitted to the Infrastructure Planning Commission (IPC), or the body that replaces it, as required by the Planning Act 2008.

Bruce Gibson, Senior Project Manager at Halite Energy said: “We have reviewed all the feedback from the previous applications and as a result we have decided not to appeal against Lancashire County Council’s refusal of the latest application.

“Working with a team of experts with extensive experience in gas storage projects across the UK and globally, we are now developing new proposals with a view to consulting the public in the autumn.”

Halite Energy is a UK registered company, and a concerted effort is underway to transition the project leadership to the UK. As part of this effort, a comprehensive search for a UK-based chief executive is currently taking place.

Halite Energy has appointed a team of global industry specialists to work on the project and specifically to address the concerns that have been raised in previous applications by the planning authorities and the local community. The company is now developing plans for a new project design that could see a reduction in the initial area of gas storage development. The company said that it will consult closely with
local authorities, statutory consultees and the local community around Preesall on a new scheme this autumn, with the aim of making a submission to the IPC in 2011.

The consultation will be extensive and include an interactive website, www.halite-energy.co.uk, where local people can learn more about the project. Additional information will be added to this website as the consultation process progresses, including the facility to post questions online.

The consultation process will also include a series of exhibitions locally to consult on the new scheme. In addition, Halite Energy has recently hired a Community Liaison Coordinator who will be out in the area communicating information around the project and listening to the voice of local individuals and groups.

Speaking about current activity at the Preesall site, Mr Gibson added: “Halite Energy is undertaking activity on the site and is implementing a new long-term maintenance programme as a responsible owner of the site. This programme includes the ongoing inspection and maintenance of existing cavern wellheads and recurring ground level monitoring surveys.”

The D. E. Shaw group, a global investment firm, acquired a majority ownership in Halite Energy in July 2010.

Earlier this year a project development loan was secured from BNP Paribas S.A. and the D. E. Shaw group. This arrangement will provide funding towards the new application.

ENDS
Press enquiries to:
The Write Angle, 01772 450 990
Angela Smith angela@writeanglepr.co.uk
Julie Cheston julie@writeanglepr.co.uk

Notes to editors

1. The IPC is an independent body that decides on applications for nationally significant infrastructure projects, which includes underground gas storage facilities
2. The D. E. Shaw group has also acquired a majority interest in the project company that is developing a liquefied natural gas (LNG) unloading and regasification facility at Amlwch, Anglesey

3. Paul Grimes has resigned by mutual consent from his role as Chief Executive Officer of Canatxx

4. The Preesall gas storage facility is nationally significant in terms of securing future energy supplies for the UK. According to the National Grid, 70% of the UK’s gas will be imported by 2020, making the country increasingly reliant on overseas sources

5. Gas storage in underground salt caverns is a mature industry and was first used in the UK in the early 1970s in Hornsea, Yorkshire. There are approximately 70 underground gas storage salt cavern facilities in use around the world, with many more under construction
Press release

13 September 2010

Halite Energy Forges Ahead With Appointment Of Prominent Industry Figure

Halite Energy, the company behind plans for an underground gas storage facility at Preesall, Lancashire, has announced the appointment of John Roberts CBE as Chairman.

The appointment is in line with the company’s commitment to building a strong UK-based team to lead its proposed project.

John Roberts is a prominent figure in the UK’s energy sector. A graduate of Liverpool University and a Fellow of the Royal Academy of Engineering, he spent 30 years with Manweb plc, joining as a graduate trainee and working his way up through the organisation to become its Chief Executive in 1992, a position he retained through Manweb plc’s acquisition by Scottish Power. Roberts then spent three years as Chief Executive Officer at Hyder Utilities, before taking up the position of Chief Executive Officer at United Utilities plc, which he held for seven years.

Roberts currently holds non-executive board positions with a number of organisations that are developing significant energy projects across the UK including the International Power plc, Royal Bank of Canada (Europe) Limited and BlackRock New Energy Investment Trust.

Originally from Wallasey, Roberts is a great advocate for the North West and has previously been Chairman of the Manchester Inward Development Agency Service (MIDAS) and a non-executive director of The Mersey Partnership. He is also a Fellow of Liverpool John Moores University.

Roberts accepted the position following an extensive review of the project. “I’m delighted to be working alongside the Halite Energy team to drive this important project forward,” he said.
“Gas storage is critical to the future security of energy supplies in the UK and this project will be nationally significant in terms of meeting our future needs. The extreme weather this past winter highlighted the urgent requirement for sufficient gas reserves to meet demand. Further, the UK’s strategy to develop renewable energy sources, such as wind power, relies on flexible gas storage to counterbalance intermittency.

“The North West has large deposits of salt which are proven to be the safest and most effective way to store gas and the Preesall site is amongst the last in the country that is suitable for this purpose.”

Halite Energy is preparing plans for submission to the Infrastructure Planning Commission (IPC), or the body that replaces it, in 2011 following an extensive local consultation process this autumn.

Bruce Gibson, Senior Project Manager at Halite Energy has welcomed the appointment. “John has a wealth of experience in the energy industry and is highly respected at regional and national level. He will be a great asset to our team and his track record and expertise will undoubtedly help us to bring the project to fruition.”

ENDS

Press enquiries to:
The Write Angle, 01772 450 990
Angela Smith angela@writeanglepr.co.uk
Julie Cheston julie@writeanglepr.co.uk
Press release

18 November 2010

Halite Energy Strengthens Board With New Appointment

Closely following the appointment of John Roberts CBE as its chairman, Halite Energy, the company behind plans for an underground gas storage facility at Preeall, Lancashire, has announced a further senior addition to its board.

David Gray, has joined Halite Energy as a non-executive director.

Gray was formerly Managing Director, Networks, at energy regulator Ofgem and a member of its governing board, the Gas and Electricity Markets Authority. He has worked in senior positions in the equity research and corporate finance divisions of HSBC heading up the company’s Energy and Utilities team where he advised on major transactions for, amongst others, the Department of Trade and Industry, Scottish Power, the National Grid and international governments.

He holds a number of other posts including a non-executive directorship of the Civil Aviation Authority and was a member of the advisory panel for Ofgem’s ‘Project Discovery’ which reviewed the medium-term outlook for energy markets.

Commenting on his appointment Gray said: “I’ve been aware of this important project for some time and am very pleased to be on board. Additional UK gas storage is necessary to ensure flexibility in the gas market during times of high demand and the Preeall site offers the right geological characteristics for this nationally significant project.”

This latest appointment to the Halite Energy board underlines the company’s commitment to building a strong UK-based team to lead the proposed project.
Commenting on the appointment chairman, John Roberts said: “We are delighted to welcome David to the team – he is well known in the energy sector and brings a wealth of experience which will be invaluable as we move the project forward.”

Halite Energy is preparing plans for submission to the Infrastructure Planning Commission (IPC), or the body that replaces it, in 2011 following an extensive local consultation process.

ENDS

Press enquiries to:
The Write Angle, 01772 450 990
Angela Smith angela@writeanglepr.co.uk
Joanna Lavender Joanna@writeanglepr.co.uk
Halite Energy Announces Appointment of Chief Executive

Halite Energy, the company behind plans for an Underground Gas Storage facility at Preesall, Lancashire, has announced the appointment of Keith Budinger as chief executive.

A qualified gas engineer, Mr Budinger has 25 years of business experience in the energy and utilities sector, including 18 years at British Gas where he was network operations manager for gas transmission, distribution and emergency services. He spent four years at the UK’s biggest listed water company, United Utilities, where, in his remit as director of Asset Management, he oversaw the construction of projects in Lancashire and Merseyside.

In 2006, Mr Budinger, who has studied Cambridge and Harvard Business School, founded his own successful infrastructure advisory business where clients have included 3i Group PLC, Exelon Corporation, Merrill Lynch and Goldman Sachs. He has also worked for Nicor Gas, operators of seven gas storage sites in North America.

Commenting on his new role Keith Budinger said: “I am very pleased to be joining the team at Halite working on this nationally significant project. In recent months I have been reviewing the proposed scheme and planning application history in detail and am convinced that an Underground Gas Storage facility at Preesall can be constructed and operated safely.

“I am looking forward to sharing the details of this new proposal with the local community when we begin formal consultation and am confident that we will be able to demonstrate to them that we have listened to and addressed past concerns.”

Dr John Roberts CBE, Halite Energy’s chair, welcomed Mr Budinger’s appointment saying: “We are delighted to have such an experienced and committed professional
like Keith on board – he brings a wealth of expertise to the role and will be a huge asset to the team as we move forward with the project plans.”

Halite Energy is preparing plans for submission of its application to the Infrastructure Planning Commission (IPC), or the body that replaces it, later this year. There will be an opportunity for all members of the local community and stakeholders to view the project plans and give their views when the formal community consultation process begins in the coming months.

ENDS

Press enquiries to:
The Write Angle, 01772 450 990
Angela Smith angela@writeanglepr.co.uk
Joanna Lavender Joanna@writeanglepr.co.uk
Press release

7 March 2011

CONSULTATION TIMETABLE FOR PROPOSED PREESALL UNDERGROUND GAS STORAGE FACILITY ANNOUNCED

Halite Energy, the company behind plans for an Underground Gas Storage Facility at Preesall, Lancashire, has announced its timetable for local community consultation over the coming months.

The consultation is an important part of its application to the Infrastructure Planning Commission (IPC), which it will submit later this year.

“Through the consultation we will inform the local community of our plans for a condensed project which will involve creating purpose-built caverns in the salt field at Preesall to store gas underground. These plans have taken into account feedback from previous applications. Most importantly, we are listening to the views, comments and concerns of local people so that we submit an application to the IPC that incorporates feedback from the community.

“As part of our commitment to safety, the Halite team has undertaken a wide range of geological tests, risk assessments and surveys and we hope that we will be able to reassure the local community that our plans are safe,” said Keith Budinger, newly appointed chief executive at Halite Energy.

The consultation plans were outlined in a Statement of Community Consultation (SoCC) at the end of 2010. Lancashire County Council and Wyre Borough Council have had the opportunity to feed back on the SoCC to Halite Energy, and these comments have now been incorporated.
Halite Energy will enter its formal consultation on 4 April 2011 when the SoCC, along with detailed geological and environmental reports and extensive project information, will be available for consideration by the local community, prior to a series of exhibitions in May.

“We want to give the local community plenty of time to review the project information and then share their views with us at the exhibitions. This means that our consultation period will extend across the whole of April and May,” explained Mr Budinger.

“Safety is paramount to Halite Energy. This commitment is underpinned by extensive work that has been undertaken on the geology of the Preesall salt. We are looking forward to sharing this information with the local community and listening to their feedback.”

Information about the project is available at www.halite-energy.co.uk

ENDS

Press enquiries to:
The Write Angle, 01772 450 990
Angela Smith angela@writeanglepr.co.uk
Joanna Lavender Joanna@writeanglepr.co.uk
Halite Energy Group Consultation on Underground Natural Gas Storage
Project Commences

Halite Energy Group is calling for the views of the local community as it unveils
condensed plans to develop an Underground Natural Gas Storage Facility at
Preesall, Lancashire.

The company is developing plans for submission to the Infrastructure Planning
Commission (IPC) to create up to 19 purpose-built caverns in the salt field at
Preesall. Individually designed and constructed, the caverns would be used for the
storage of up to 900 million cubic metres of natural gas, including 600 million cubic
metres of working gas. This is significantly less than previous proposals promoted by
Canatxx Gas Storage between 2005-2009. Gas distribution pipelines and manifolds
connecting the wellheads and a pipeline that links a gas compound to the National
Transmission System at Nateby would also be constructed.

A comprehensive review of previous proposals and their planning application history
has been undertaken by the new leadership and management in place at Halite. The
company has also carried out extensive geological tests to determine the suitability of
the Preesall site to store gas safely and securely. The company is chaired by Dr
John, Roberts CBE, former chief executive at United Utilities who has recently been
joined by qualified gas engineer, Keith Budinger whose career includes 18 years at
British Gas. Both men have extensive experience in the energy sector and
developing projects in the North West and are convinced that an Underground
Natural Gas Storage facility at Preesall can be constructed and operated safely.

The consultation period will run until 27 May 2011 giving the local community nearly
two months to review detailed information about the proposals, have their questions
answered and give their feedback on the plans.

Halite has today (4 April) published a Statement of Community Consultation, along
with extensive project information, detailing the steps that will be taken to ensure that
local people have the opportunity to inform the plans that will be submitted to the IPC in the coming months. Documentation relating to the proposals, including technical reports and detailed maps and drawings, is available to download from Halite’s website and also in hardcopy at key locations across the local area including Lancashire County Council and Wyre Borough Council offices.

A key part of the consultation will be a series of exhibitions that will be held in locations near the proposed development site for three weeks in May. Nearly 14,000 households will be sent invitations to attend one of these events which are being held on the following dates:

- Stalmine Village Hall, Tuesday 10 May, 10am – 7pm
- St Oswald’s Village Hall, Knott End, Friday 13 May, 10am – 7pm
- St Oswald’s Village Hall, Knott End, Saturday 14 May, 10 – 4pm
- North Euston Hotel, Tuesday 17 May, 10am – 7pm
- Pilling Memorial Hall, Thursday 19 May, 10am – 7pm
- Thornton Little Theatre, Monday 23 May, 10 – 7pm.

In addition, Halite’s community liaison co-ordinator, Debbie Morris, will be out and about in the community holding drop-in sessions for people who want to find out more about how they can get involved.

Commenting on the consultation, Keith Budinger, chief executive of Halite, said: “We are very pleased to now be sharing our plans for an Underground Natural Gas Storage Facility with the local community and welcome all feedback on our proposed Project. There is a range of information now available to the public and we hope that they will want to find out more.

“We understand that there are people who oppose the proposals or have reservations about our Project and we would urge them to review the material that is available, ask us any questions and come along to an exhibition for further details.”

There is a range of ways to find out more about Halite’s proposals and give your feedback:

- Visit the website: www.halite-energy.co.uk
• Email: community@halite.net
• Call Halite: 01772 672 244
• Write to: Freepost RSRC-UETY-CHSU, Halite Energy Group, Unit 5, St Georges Court, St Georges Park, Kirkham, Preston, PR4 2EF

ENDS

Notes to Editors

Consultation documents will be available to view at the following locations and times:

**Halite Energy Group**, 9am – 5pm
Unit 5, St Georges Court, St Georges Park, Preston, PR4 2EF

**Lancashire County Council**, 9am – 5pm, contact LCC on 01772 534181 or email DevCon@lancashire.gov.uk to arrange an appointment to view the documents.
Environment and Public Protection Services, Environment Directorate, PO Box 100, County Hall, Preston, PR1 0LD

**Wyre Borough Council**, 8.30am – 5pm (Mon – Thu, 8.30am – 4.30am (Fri)
Civic Centre, Breck Road, Poulton-le-Fylde, Lancashire, FY6 7PU

**Fleetwood Library**, tel 01253 775800 for opening times
North Albert Street, Fleetwood, FY7 6AJ

**Thornton Library**, tel 01253 869138 for opening times
Victoria Road East, Thornton, FY5 3SZ

**Poulton-le-Fyle Library**, tel 01253 888900 for opening times
Blackpool Old Road, Poulton-le-Fylde, FY6 7DH

**Knott End Library**, tel 01253 858529 for opening times
Lancaster Road, Knott End, FY6 0AU

**Thornton Little Theatre**, tel 01253 858529 for opening times
Fleetwood Road North, Thornton Cleveleys, FY5 3SZ

**North Euston Hotel**, tel 01253 876525 for opening times
The Esplanade, Fleetwood, FY7 6BN

Press enquiries to:
The Write Angle, 01772 450 990
Angela Smith  angela@writeanglepr.co.uk
Joanna Lavender  Joanna@writeanglepr.co.uk
Date: 28 April 2011

Halite Energy Invites Public to Share Views at Series of Public Exhibitions

Halite Energy, the company behind plans for an Underground Natural Gas Storage Facility at Preesall, Lancashire will begin a series of public exhibitions on 10 May as part of its community consultation.

The company wants to hear feedback from local people which will influence the proposals ahead of a submission to the Infrastructure Planning Commission (IPC) later this year. Halite has written to nearly 14,000 households in the area surrounding the proposed development to publicise the series of six public exhibitions to be held at:

<table>
<thead>
<tr>
<th>Venue</th>
<th>Date</th>
<th>Time</th>
</tr>
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<tbody>
<tr>
<td>Stalmine Village Hall</td>
<td>Tuesday 10 May</td>
<td>10am – 7pm</td>
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<tr>
<td>St Oswald’s Church Hall, Knott End</td>
<td>Friday 13 May</td>
<td>10am – 7pm</td>
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<td>Saturday 14 May</td>
<td>10am – 4pm</td>
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<td>North Euston Hotel, Fleetwood</td>
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</tr>
<tr>
<td>Thornton Little Theatre</td>
<td>Monday 23 May</td>
<td>10am – 7pm</td>
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</table>

Visitors to the free events will have the opportunity to meet Halite’s Project team, raise any comments or concerns with them and view a range of plans, maps and information around the Project. Transport to any of the exhibitions is available to those who need it.

Halite is carrying out a two-month long community consultation on plans for a condensed Project which will involve creating purpose-built caverns in the salt field at Preesall to store natural gas underground. The current plans were prepared following a thorough review of previous planning applications by the new management team.
Keith Budinger, chief executive of Halite, said: The revised proposals we are consulting on have taken into account feedback to previous applications. For example, we have undertaken extensive work on the geology of the Preesall salt in order to demonstrate the suitability of the area for the safe and secure storage of natural gas.

“It’s very important for us to hear the response of local people to our proposals and we would encourage people to come along to one of our exhibitions which offer a great opportunity to find out more.”

Halite’s community consultation is running from 4 April until 27 May. Detailed geological and environmental reports and extensive Project information is available for consideration by the local community and stakeholders.

For more information about Halite’s proposed Project:
- visit www.halite-energy.co.uk
- call 01772 672 244
- write to Halite Energy Group, Freepost RSRC-UETY-CHSU, Unit 5, St Georges Court, St Georges Park, Kirkham, Preston, PR4 2EF.

Halite needs the responses of individuals and groups to its proposals by **Friday 27 May**.

ENDS

Press enquiries to:
The Write Angle, 01772 450 990
Angela Smith angela@writeanglepr.co.uk
Joanna Lavender Joanna@writeanglepr.co.uk
Press release

13 May 2011

Public Urged to Have Say on Halite Natural Gas Storage Proposals

The chief executive of the company behind plans for a condensed Underground Natural Gas Storage Facility at Preesall, Lancashire has urged local people not to miss the opportunity to have their say on the proposed Project.

Halite Energy is developing plans for submission to the Infrastructure Planning Commission (IPC) to create up to 19 purpose-built caverns in the salt field at Preesall. Individually designed and constructed, the caverns would be used for the storage of up to 900 million cubic metres of natural gas, including 600 million cubic metres of working gas.

A community consultation has been running from 4 April and Halite needs the responses of individuals and groups to its proposals by 27 May when the formal consultation ends.

Keith Budinger, chief executive of Halite said: “It is very important for us to hear the feedback of the local community in response to our proposals and I would urge anyone interested in finding out more and having their say not to miss the opportunity to do so.”

Halite is holding a series of public exhibitions across the local area where visitors can meet with members of Halite’s Project team, raise any comments or concerns with them, view a range of plans, maps and information around the Project and complete a feedback questionnaire. The final two events will be held at Pilling Memorial Hall on Thursday 19 May and Thornton Little Theatre on Monday 23 May. Both events will be open between 10am and 7pm and transport is available if required.

Keith Budinger added: “The public exhibitions offer members of the local community an opportunity find out more about our proposals and how our current plans have taken into consideration the feedback received from previous applications.”
For more information about Halite’s proposed Project and to share your views:

- visit www.halite-energy.co.uk
- call 01772 672 244
- write to Halite Energy Group, Freepost RSRC-UETY-CHSU, Unit 5, St Georges Court, St Georges Park, Kirkham, Preston, PR4 2EF.

ENDS

Press enquiries to:
The Write Angle, 01772 450 990
Angela Smith  angela@writeanglepr.co.uk
Joanna Lavender  Joanna@writeanglepr.co.uk
Press release
3 June 2011

Formal Consultation on Underground Natural Gas Storage Project Closes

Halite Energy Group, the company behind plans to develop an Underground Natural Gas Storage Facility at Preesall, Lancashire, has thanked members of the local community for their contributions to the recent consultation.

Launched on 4 April 2011, the formal consultation period has now ended. Halite will now review all the correspondence received, considering how the views and opinions expressed will impact on the proposals, before making a decision on its next steps.

The consultation included a series of exhibitions across the area, attended by 359 people. Halite has also met with a range of local groups including Local Area Forums, Stalmine with Staynall Parish Council and the Wyre Community Group.

“We very much appreciate the time people have taken to attend the recent exhibitions and meetings. Their feedback is invaluable to us and will help us shape our proposals in advance of submitting our application to the Infrastructure Planning Commission later this year” said Halite’s chief executive, Keith Budinger.

“I’ve enjoyed the opportunity to meet face to face with local people and listen to their views. My team has been able to address many of the concerns, particularly around geology and safety. I hope that having met with us, people in the community will recognise how much detailed work has been done to ensure that our Project is safe.”

Halite will now produce a consultation report, which will be made available publicly, and will form a key part of the application. The report will include comments made by both statutory consultees, such as Lancashire County Council, Wyre Borough Council and the Health & Safety Executive, alongside views and opinions from the local community.

“Whilst the formal consultation period has now come to a close there is still much work to be done in finalising all our application documents,” explained Mr Budinger.
“It’s too soon at this stage to give a finite timescale on a likely submission date, however I would urge those that are interested in being kept up to speed with the progress on the application to join the Community Liaison Panel. This Panel is run independently of Halite and will continue to meet throughout the application process and potentially beyond. It offers a great way for representatives of the local community to keep in touch with our plans as they develop.”

If you are interested in joining the Community Liaison Panel please contact The Write Angle in the first instance on 01772 450990, or email clp@writeanglepr.co.uk

ENDS

Notes to Editors
Halite is developing plans for submission to the Infrastructure Planning Commission (IPC) to create up to 19 purpose-built caverns in the salt field at Preesall. Individually designed and constructed, the caverns would be used for the storage of up to 900 million cubic metres of natural gas, including 600 million cubic metres of working gas. This is significantly less than previous proposals promoted by Canatxx Gas Storage between 2005-2009. Gas distribution pipelines and manifolds connecting the wellheads and a pipeline that links a gas compound to the National Transmission System at Nateby would also be constructed. A brine pipeline would be built to return seawater from the cavern development area under the River Wyre to a brine discharge approximately 2.3 km offshore.

Press enquiries to:
The Write Angle, 01772 450 990
Angela Smith angela@writeanglepr.co.uk
Joanna Lavender Joanna@writeanglepr.co.uk
Halite Energy Publishes Interim Public Consultation Feedback Report

Halite Energy Group, the company behind plans to develop an Underground Natural Gas Storage Facility at Preesall, Lancashire, has published an interim Feedback Report following a public consultation which commenced on 4 April 2011.

The non-statutory document is designed to provide interim feedback to consultees and members of the local community in advance of the publication of the more detailed statutory Consultation Report, which will be submitted to the Infrastructure Planning Commission (IPC) as part of Halite’s application for a Development Consent Order (DCO) later this year.

The Feedback Report gives an overview of the key issues, concerns and suggestions that have been raised with Halite during the consultation, as well as detailing the changes that have been made to the proposed Project as a result of this feedback.

Halite chief executive, Keith Budinger, said: “A crucial part of our preparation for the application to the IPC is a thorough and effective consultation with the community and other stakeholders affected by our plans.

“The Feedback Report has been prepared so we can demonstrate to those people and organisations who took the time to share their views and opinions with us during our consultation, and to the wider community, that we are listening and that the concerns shared with us have influenced and shaped our Project proposals.”

Halite’s Feedback Report is available to view and download from Halite’s website at www.halite-energy.co.uk. Hard copies will also be available in local libraries and can be requested in the following ways:

- Email: community@halite.net
- Call: 01772 672 244
• Write to: Halite Energy, Freepost RSRC-UETY-CHSU, Unit 5, St Georges Court, St Georges Park, Kirkham, Preston, PR4 2EF

ENDS

Notes to Editors
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Press enquiries to:
The Write Angle, 01772 450 990
Joanna Lavender Joanna@writeanglepr.co.uk
Angela Smith angela@writeanglepr.co.uk
Press release

Date: 26 September 2011

Halite Energy Publishes Technical Assessment Summary

Halite Energy Group has published a summary of the technical assessment report detailing findings of the investigation into the causes of the brine well incident which occurred in Preesall on 18 June.

Using CCTV, Halite, the company preparing to submit an application to the Infrastructure Planning Commission (IPC) to develop an Underground Natural Gas Storage Facility, has established that a short section of borehole casing was distorted and ruptured in an airlock in the brine well 190 metres below ground. This caused air and brine to rise up under pressure to the wellhead, however the wellhead flange was able to withstand this increase in pressure. Highly pressurised brine and air travelled back down the gap between the inner and outer casings and then back to the ground surface around the outside of the outer casings. It is likely that this happened at approximately 24m below the surface.

Chief executive of Halite, Keith Budinger, said: "The primary cause of the incident has been identified as ruptured casing at depth, which was most likely damaged during installation or operation many decades ago. However, this in itself would not have caused the incident. Forensic experts identified information which was consistent with third party interference being a cause of damage at the wellhead. Safety and security remain our number one priority and any information suggesting a deliberate attempt to cause a dangerous incident of this kind was and will be treated extremely seriously."

The strength of the information provided to Police by Halite resulted in a case being opened and investigation being carried out by them.

Keith Budinger added: "Lancashire Constabulary has stated that they have found no verifiable evidence either way to indicate whether a crime has or has not been committed but we are grateful for their efforts at senior level to investigate our
concerns. It is not possible to share further details of the evidence publicly as, should further information come to light, the Police investigations will be re-opened."

Halite has already taken measures to strengthen security, monitoring and maintenance around all the historic brine wells and is completing a full risk assessment of every well.

The company has also stepped up onsite security to provide visible reassurance to the local community of Halite's commitment to security and safety. A 24-hour ranger patrol has been introduced to monitor the land in Halite's ownership, paying particular attention to areas with wellheads from historic workings.

The results of CCTV and geophysical surveys undertaken following the incident have been compared to the high quality sonar survey results of the brine well gathered in June 2010. This work has demonstrated that the cavern is stable and the cavern floor and roof remain intact, removing any possibility that cavern instability caused the incident and also removing any concerns around any future cavern collapse or ground subsidence in the adjacent area.

Now that the relevant evidence is available the full report is being assembled by Halite's geology consultants and will be published on 30 September 2011. Meanwhile, a summary of the technical assessment is available from Halite's website at www.halite-energy.co.uk.

ENDS

Notes to Editors

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Press enquiries to:
The Write Angle, 01772 450 990
Joanna Lavender Joanna@writeanglepr.co.uk
Angela Smith angela@writeanglepr.co.uk
Press release

Date: 30 September 2011

**Halite Energy Publishes Full Technical Assessment Report**

Halite Energy Group, the company behind plans to develop an Underground Natural Gas Storage Facility at Preesall, Lancashire, has published a detailed technical assessment into the causes of a brine well blow out at Preesall on 18 June.

The report demonstrates that the cavern at Brine Well 45, where the incident occurred, is stable and the cavern floor and roof remain intact, removing any possibility that cavern instability caused the incident and also taking away concerns around any future cavern collapse in the adjacent area.

Halite chief executive, Keith Budinger, said: "The publication of this report does not mark the conclusion of our response to the unexpected incident. From the outset, Halite took swift action to make the site safe and begin a clean-up operation. This has involved working with all the relevant organisations, including the Environment Agency, Lancashire County Council and Wyre Borough Council, on the very important job of limiting the impact of the event on the local environment from taking immediate action to contain the brine outflow and minimising the effects on local vegetation to developing detailed remediation plans to restore the condition of hedgerows and agricultural land affected."

The results of work undertaken by soil scientists and ecologists of potentially affected soil and water have been analysed by the company’s environmental consultants at Hyder Consulting who are working closely with local authorities and the Environment Agency on a long-term strategy that will return the affected area to its pre-incident state.

Keith Budinger added: "Halite is committed to being a good steward of the land in our ownership. In addition to the environmental remediation work being carried out we have also undertaken technical response work which involves filling the cavern at
Brine Well 45 with brine to add further strength and support. Site safety and security has also been strengthened by appointing a 24-hour security ranger patrol to monitor our land."

Halite will be making an application for a Development Consent Order (DCO) to develop an Underground Natural Gas Storage Facility at Preesall to the Infrastructure Planning Commission in the coming weeks.

The technical assessment report can be viewed and downloaded from Halite's website at www.halite-energy.co.uk.

ENDS

Notes to Editors

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Press enquiries to:
The Write Angle, 01772 450 990
Joanna Lavender Joanna@writeanglepr.co.uk
Angela Smith angela@writeanglepr.co.uk
Media statement - 18 June 2011

Keith Budinger, Halite chief executive, said: “On Saturday 18 June at around 6am, the wellhead of a disused brine well on our land failed, resulting in brine being ejected into the air and the temporary closure of Cemetery Lane and Back Lane.

“My team and I were onsite soon afterwards in order to assess the situation and minimise the impact of the event on local surroundings. As a result, we were able to take swift action to erect safety fencing around the wellhead and begin a clean-up operation.

“I would like to apologise for any worry and inconvenience caused by this incident. Halite is committed to being a good steward of the land in our ownership which is why we have developed, and are implementing, an ongoing maintenance programme. Our close monitoring of the site enabled us to respond quickly to this event and, as a responsible landowner, we will ensure that we learn all we can to help us with the ongoing safe management of our site.”

/ends
Media statement - 21 June 2011

The Environment Agency is leading a multi-agency response to protect people and the environment following an incident at Preesall, Lancs, which saw contaminated brine water burst into the air, falling onto local fields, and causing the closure of a local road.

On Saturday (18 June) the wellhead of an old disused brine well collapsed on a site owned by Halite Energy Ltd. Swift action was taken to minimise the environment impact, however, the brine discharge has affected an area of farmland and entered a nearby river.

The Environment Agency, Wyre Borough Council, Natural England and the Foods Standards Agency, amongst others*, have been closely monitoring the situation to understand the extent of the impact and to protect people and the environment.

The incident has caused no public health risks and roads are now open as normal. Monitoring of the flow of the contaminated water has shown that there does not appear to be any impact on the Wyre estuary or water supplies. The Food Standards Agency has confirmed that the risk of contamination of local mussel beds appears to be very low.

Local farmers have been given guidance, and advised not to use their fields until further information has been gathered. The multi-agency group is keeping in touch with farmers in close proximity to the site.

Halite Energy Ltd is carrying out a thorough investigation into the reasons why this event occurred, and a clean-up operation is underway.

Keith Budinger, chief executive of Halite, said: "Halite is working closely and cooperating fully with all the relevant agencies, including the Environment Agency, Lancashire County Council and Wyre Borough Council, to ensure that we mitigate the impact of this incident. Alongside this activity we are carrying out a thorough investigation into the reasons why this event occurred.

"Halite is committed to being a good steward of the land in our ownership and we take this responsibility very seriously. We will ensure that we review our ongoing maintenance programme following this event.

"Once again I would like to take this opportunity to apologise for the disruption caused during the past few days and assure the local community that we are doing everything we can to minimise the impact of the incident."

*The multi-agency response includes representatives from the Environment Agency, Wyre Borough Council, Lancashire County Council, Natural England, the Foods Standards

/ends
Media statement - 24 June 2011

An update from Keith Budinger, chief executive of Halite Energy, on Halite’s response to the collapse of a wellhead on 18 June 2011:

“Following close work with the Environment Agency and other bodies to quickly to limit the impact of the incident on the health and safety of local residents, animals and wildlife, we are now carrying out a full technical investigation to establish exactly what caused this unexpected event.

“A perimeter fence has been erected and twenty-four hour security established, restricting access to the site. We are now confident that it is safe for a scaffold contractor to come to the site and erect a platform from which we will be able to carry out essential investigative work. The area is being supervised under Construction Design Management regulations and will continue to be so for the purposes of our investigation and, as appropriate, any restoration work.

“Safety will remain paramount throughout and we hope to have the results of our investigation in the next few weeks.”

/ends
8 July 2011

**Update on brine well incident**

An update from Keith Budinger, chief executive of Halite Energy on progress with the brine well collapse which took place on 18 June 2011:

“Safety continues to be our number one priority as we carry out remediation work to limit the impact of the incident on the local vicinity and conduct a full investigation into the cause of the incident.

“In conjunction with bodies such as the Environment Agency, Lancashire County Council and Wyre Borough Council, we have undertaken a range of activity to secure the site, which is now being supervised under the Construction Design Management regulations. This work includes erection of a perimeter fence and installing twenty-four hour security. The Health & Safety Executive have been down to site this week and have confirmed that our operation is in line with their guidelines around site safety.

“Since the incident, almost three weeks ago, we have been doing our utmost to contain the brine outflow and limit the impact on local vegetation. We have cleaned up the brine outside the crater danger zone and have now started work to restore the area around the inner zone which includes filling in the crater and commencing the clean up of the brine in that area. We have engaged soil scientists and ecologists to monitor the situation and take samples of potentially affected soil and water. The results of this monitoring work are being used to develop a restoration plan for the affected area.

“There is still some air pressure within the cavern and we are waiting for this to subside before we can install a new wellhead.

“We are making good progress with investigations into the cause of the incident. Work carried out to date includes an on-site technical study of the exterior of the well and the construction of a scaffolding platform with long-reach crane support to give
us access to the wellhead in the crater. This will enable us to enter the wellhead to conduct downhole and cavern studies.

“We are confident that we will establish the reason why this incident occurred and are in the process of producing a full technical assessment which will determine the cause of the brine well failure. I’d like to reiterate that Halite has nothing to hide and we will be making this report available to the 19 agencies that we have been working with since the incident occurred on 18 June and to the local community. Subject to the investigations being completed in line with our schedule our aim is to produce our report by the end of July.

“I’d like to take this opportunity to apologise for the worry and inconvenience this has caused to people in Preesall and the surrounding area. Should people have specific concerns they wish to discuss with Halite, they should contact our Kirkham office on 01772 672244 or email community@halite.net.”

ENDS
Media statement – 01 August 2011

Dr John Roberts CBE, chairman of Halite Energy:

“Safety and security are paramount to Halite in all our operations.

“We conducted an immediate and thorough investigation into the causes of the brine well incident at Preesall, Lancashire.

“We have now handed the findings of our investigation to Lancashire Police, and will cooperate fully with their enquiry.

“Our detailed technical assessment has concluded that the cavern at brine well 45 is stable and the cavern roof and cavern floor are still intact and unchanged, removing concerns around any future cavern collapse or ground subsidence in the adjacent area.

“We are undertaking a full risk assessment and will update our maintenance programme to prevent any similar instances from occurring in the future, in particular in relation to the old wells that are understood to be of similar configuration to brine well 45. This will include reviewing all the old wellheads.

“We are also assessing the need for security fencing and signage around the wellheads to protect them and deter the public from approaching these areas.

“Work is continuing with the clean-up of the brine. We are undertaking ongoing water sample monitoring and soil analysis work with the Environment Agency and Wyre Council and will discuss options for the remediation of the affected area with them.

“We will continue to work closely with all relevant agencies and the local community to ensure that this incident is resolved as soon as possible.”

/ends
Media statement – 16 August 2011

Keith Budinger, chief executive of Halite Energy, said: “During the course of our investigations into the cause of the brine well incident on 18 June 2011, information came to light which we felt it right and proper to pass to the police. Subsequently, on 3 August 2011, Halite Energy Group received a letter from the Police notifying us that based on the strength of the evidence we provided to them an investigation would be undertaken and a case was opened.

"We are very grateful to Lancashire Constabulary for their efforts at a senior level to investigate this information and our concerns and appreciate that from their perspective, there is insufficient evidence at this stage to take matters further.

“The detailed work we have undertaken to date demonstrates that the blow out was not the result of a geological failure. The cavern at brine well 45 is stable and the cavern roof and cavern floor remain intact and unchanged, removing concerns around any future cavern collapse or ground subsidence in the adjacent area. Our investigations into the cause of the blow out are therefore ongoing.

"We are committed to ongoing monitoring, maintenance and security of our estate and to remediation of the area around the affected brine well, working with key agencies including the Health & Safety Executive, the Environment Agency, Wyre Borough Council and Lancashire County Council."

/ends
## Table of Press Releases and Coverage Achieved

### Press releases re: Consultation

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Appendix D

Section 42 and Local Authority Communications (Including Consultation on Draft SOCC)

- Letters to LCC and WBC re: sending draft SOCC
- SOCC responses (LCC and WBC)
- List of Informal Consultation Consultees
- Schedule 1 Consultees
- Template Letters
- Section 42 Correspondence
Dear Stuart

HALITE ENERGY LIMITED - PROPOSALS FOR UNDERGROUND GAS STORAGE FACILITY AT PREESALL STATEMENT OF COMMUNITY CONSULTATION - SECTION 47 PLANNING ACT 2008

You will be aware that we act on behalf of Halite Energy Limited in respect of its proposals for an Underground Gas Storage Facility at Preesall. The proposed project constitutes a "nationally significant infrastructure project" and, therefore, falls under the regime of the Infrastructure Planning Commission.

Pursuant to Section 47 Planning Act 2008, we are required to consult with Lancashire County Council and Wyre Borough Council in respect of the proposed Statement of Community Consultation ("SOCC"). The SOCC sets out how Halite intends to consult members of the public, local communities, relevant local authorities and other stakeholders on the proposals.

As requested at our meeting on the 12 October, we attach two hard copies and one electronic of the draft SOCC for your comments. The document is comprised of two parts:

1. Part One which sets out the proposed Consultation Strategy.
2. Part Two which contains a copy of the proposed Section 47 SOCC Notice which would be published in accordance with the statutory requirements.

We have already held informal discussions with you in respect of the SOCC but this letter starts the formal period of consultation. In accordance with the statutory time limit, please can you provide your comments within 28 days of receipt of this letter.

We trust that the above and the attachment is self explanatory but if you require any further information or clarification please do not hesitate to contact us.

Yours sincerely

ADRIAN JAMES
Partner
D Thow Esq
Wyre Borough Council
Civic Centre
Breck Road
Poulton-le-Fylde
Lancashire
FY6 7PU

Our ref: 16638/A3.3/AJ/MS
15 October 2010

Dear David

HALITE ENERGY LIMITED - PROPOSALS FOR UNDERGROUND GAS STORAGE FACILITY AT PREESALL STATEMENT OF COMMUNITY CONSULTATION - SECTION 47 PLANNING ACT 2008

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2. Part Two which contains a copy of the proposed Section 47 SOCC Notice which would be published in accordance with the statutory requirements.

We have already held informal discussions with you in respect of the SOCC but this letter starts the formal period of consultation. In accordance with the statutory time limit, please can you provide your comments within 28 days of receipt of this letter.

We trust that the above and the attachment is self explanatory but if you require any further information or clarification please do not hesitate to contact us.

Yours sincerely

ADRIAN JAMES
Partner
Dear Mr James

CONSULTATION BY HALITE ENERGY – PROPOSALS FOR AN UNDERGROUND GAS STORAGE FACILITY AT PREESALL SALTHIELD - DRAFT STATEMENT OF COMMUNITY CONSULTATION STRATEGY – SECTION 47 PLANNING ACT 2008

I write further to your consultation on the draft statement of community consultation on your proposals for an underground gas storage facility at Preesall Saltfield. I apologise for the delay of the County Council’s response.

I am aware that you have had on-going discussions with the case officer, Mr Perigo, regarding this project and he has expressed his informal views on the content of the draft statement given your client’s timetable and recent announcement regarding their intention to commence public consultation in May this year.

Please find attached a report prepared by the case officer on your proposals. I would request Halite Energy Limited to consider the views set out in the ‘Assessment of the Statement of Community Consultation Strategy’ section of the report and for those views to be addressed as part of the preparation of the final Strategy as part of the Statement of Community Involvement.

If you wish to discuss these matters further, please contact Mr Perigo who will be pleased to assist.

Yours sincerely

M. A. Green

County Councillor Michael Green
Cabinet Member for Environment and Planning
Executive Summary

Halite Energy Limited is proposing an underground gas storage facility at Preesall. The project constitutes a nationally significant infrastructure project and will be assessed by the Infrastructure Planning Commission (IPC). The development constitutes development requiring an Environmental Assessment (EA). Pursuant to Section 47 of the Planning Act 2008 Halite Energy Limited are required to prepare a Statement of Community Consultation (SOCC) and has consulted the County Council on its Statement of Community Consultation Strategy (SOCCS). The SOCCS sets out how Halite Energy Limited will consult with the local community on the project and identifies the relevant individuals, key stakeholder groups and interested parties, timetables for consultation and nature of consultation activities and methods for feedback.

Recommendation

That Halite Energy Limited be requested to consider the views set out in the 'Assessment of the Statement of Community Consultation Strategy' section of the report and for those views to be addressed as part of the preparation of the final Strategy as part of the Statement of Community Involvement.

Background and Advice

Halite Energy Limited is proposing to develop land at Preesall for an underground gas storage facility involving the creation of caverns by solution mining. The
development would include gas storage caverns; water washing infrastructure; above ground gas infrastructure and new road infrastructure. Development of the site would extend over three years and the site would have a design life of over 25 years dependant on the continued demand for gas, potential new sources of gas and their reliability. An interconnecting pipeline from Halite’s approved gas terminal to import liquid natural gas at Anglesey is being considered although is not part of the current project proposals. Halite has also confirmed they may consider proposals to extend the site in the future. At the end of its operational life the site would be decommissioned and consideration be given to the reuse of infrastructure for alternative uses such as flood control.

There is an extensive history to the proposed development; planning applications for similar development have previously been refused by the Secretary of State for Communities and Local Government and by the County Council as recently as January 2010.

In view of changes to legislation the new proposal will be in the form of a Development Order Consent (DOS) which will be determined by Infrastructure Planning Commission (IPC); the DOS would be accompanied by an Environmental Assessment of the proposal. It was initially expected to be submitted at the beginning of March 2011. However, Halite Energy has advised that it is now not expected to be submitted until autumn 2011 at the earliest. The County Council is no longer the determining authority but would be consulted on the proposal.

As part of the pre application process and Pursuant to Section 47 of the Planning Act 2008, Halite Energy Limited is required to prepare a SOCC and consult the County Council and Wyre Borough Council on its content. Halite Energy Limited has consulted the County Council and Wyre Borough Council on the SOCCS. The consultation process does not extend to other bodies, groups or individuals. Initially the County Council had 28 days to comment on the SOCCS but light of matters raised at the Outreach event on 9th November regarding the involvement of Parish Council’s in the process, Halite Energy made the SOCC available on their website and extended the consultation period indefinitely but with a commitment to publish the SOCC before the end of the year and commence the consultation process in January 2011. However, slippage has occurred and Halite has recently informed the County Council that it is their intention to commence public consultation in May 2011.

**The Statement of Community Consultation Strategy (SOCCS)**

The Strategy comprises 2 parts:

- Part One sets out the planning history, a project overview, the proposed community consultation and the proposed consultation with statutory consultees.
- Part Two contains a copy of the Section 47 SOCC Notice which would be published in accordance with the statutory requirements.

Part One sets out an introduction to the scheme confirming that Halite Energy are a new company having acquired the interests of Canatxx and are pursuing the project through a Development Order Consent to be determined by the IPC and describing the main elements of the project. It explains the legislative need for pre application
consultation to ensure that the community and statutory consultees have the chance to be informed and to influence the project. It confirms that the history of the site has been taken into account and that regard has been paid to the views expressed by the community, consultees and the conclusions of the County Council and Secretary of State for Communities and Local Government. It provides a summary of the development proposals including descriptions of the following:

- The gas storage caverns
- Water washing infrastructure
- Gas infrastructure
- Road Infrastructure

It sets out the proposed consultation process for both the community and statutory consultees.

Part 2 sets out the draft Statement of Community Consultation. It similarly sets out an introduction to the project; the consultation timetable; who will be consulted; how they will be consulted and how responses will be made to the consultation process.

It states consultation is expected to commence in January 2011 and that an indicative layout of the proposals and preliminary information will be provided. However, Halite has subsequently advised that it is their intention to commence community consultation in May 2011.

It is proposed to consult those surrounding the proposed caverns and surface infrastructure, the brine pipeline and the gas interconnector pipeline and identifies two zones for different levels of consultation. The zones have been defined relative to the objections received to the previous applications.

Zone 1 covers the area surrounding the proposed above and below ground infrastructure and extends to the coastline at Knot End in the North and Hambleton in the south. Consultation will be intensive in this area and include direct mail to every household along with the consultation measures set out below.

Zone two west covers the area on the Fleetwood peninsula that would be affected by the development of the brine discharge corridor and encompasses Fleetwood and Thornton Cleveleys.

Zone 2 east covers the area affected by the interconnecting gas pipeline to the national transmission line and extends to 1km north and south of the pipeline.

Halite Energy has identified the demographics of the area which identifies this part of Lancashire as having a predominantly aging population and accordingly will ensure their consultation exercise will cater for those that are disadvantaged in any way and have access to information and exhibitions by making dedicated transport available as required.

It is proposed to establish a community liaison panel; a tenant’s group; workshops and appoint a local liaison coordinator. It is also proposed to communicate with young people through a range of media including local radio and invest in the ‘Schools Rock’ initiative which funds a local school to create an advertisement which
is then aired on the radio station and offer to run presentations to local schools; parish councils; meet with community leaders including local MPs and councillors; and hold public exhibitions. An interactive web site has been established and it is intended to produce and circulate a newsletter. Questionnaires will be available through the local liaison coordinator on a day to day basis and at public exhibitions to which individual responses will be made. The local media will be used to communicate project plans and advertise events such as the exhibitions. A project overview will be prepared and circulated at events and made available in libraries and community centres. Notification of events will be circulated by direct mail to specified post codes equating to approximately 13,400 households, inserted in local newspapers and displayed where possible in local libraries, community centres and shops.

Halite Energy intend to monitor and consider all feedback and comments made during the consultation process and prepare a consultation report at the end of the consultation period to include information on how the consultation was undertaken, the outcomes of the consultation, how comments have been taken into account, and why changes may not have been made. The report will be made available on the Halite Energy Ltd's web site; submitted to the respective planning authorities; made available to groups and individuals who engaged in consultation process; report in the newsletter; and provide feedback through the community liaison panel and the tenants group. It is proposed to submit the consultation report to the IPC as part of the application.

A time table is included which sets out the activity identified and the steps that have already been taken. Following publication of the SOCC, it was proposed to undertake the following in January and February 2011 although this is now programmed to commence in May 2011:

- Hold workshops with local groups
- Meet with statutory consultees
- Arrange community liaison coordinator drop in sessions
- Make presentations to local schools
- Meet with local media
- Respond to web site questions
- Promote and holds public exhibitions
- Publish a second newsletter

Part Two contains a copy of the Section 47 SOCC Notice which would be published in accordance with the statutory requirements. It identifies the statutory consultees considered to be relevant to the current proposal and sets out in a similar way to Part One. It confirms when consultation will commence and confirms indicative plans will be provided and consultation will continue up to the submission of the application to the IPC. It identifies those who will be consulted in a similar way to Part One.

Assessment of the SOCCS

It is considered that the SOCC is comprehensive in its content and how it intends to consult on the development proposals and is acceptable in principle.

Part One
The SOCCS would benefit from an index page.

The SOCCS states that the scheme has been reduced in size and that the amount of gas to be stored is significantly less than in proposed previous schemes; how much smaller the scheme is or how much gas is proposed to be stored is not identified. The red edge of area of interest is smaller but there is no identification of the number of caverns to be created or the amount of gas that is to be stored. It is considered that the differences from the previous projects should be identified along with the number of caverns and amount of gas that is proposed to be stored. This would inform how much smaller the scheme is and how significant the reduction of gas to be stored would be.

Reference is made in the planning history to previous planning applications for the gas storage development but does not make reference to the previous application for the inter connecting pipe line submitted to Wyre Borough Council and which remains outstanding and for which no decision notice has been issued.

The development is the subject of an environmental impact assessment (EIA); the IPC guidance states that the SOCC needs to state that the development is EIA and needs to state how the preliminary environmental information is to be consulted on (Regulation 10). There does not appear to be any specific reference to the fact that the development is EIA development or information relating to such in the consultation methodology/timetable being made public.

Part One identifies who will be consulted and states a review of the letters of objection has been carried out that identifies the origin of representations received. The methodology of the review should be identified particularly if this has influenced the identification of those considered to be most affected when identifying the Zones 1 and 2. There does not appear to be recognition of the weight of concern expressed to previous development proposals from residents identified in Zone 2 west or the reasons why the concern was expressed. It is considered that the same level of consultation should be carried out in Zone 2 west as proposed in Zone 1.

Part One makes a commitment to convene a community liaison panel but there is no indication how representatives of the local community and key stakeholders would be identified and, given the geographical split in interests it is questionable whether one liaison group is sufficient. It is very important that the coordination and appointment of any coordinator to the liaison group(s) is independent from Halite Energy to ensure transparency and avoid any conflict of interest. It is also important to ensure that the representation on any liaison group is made up from appropriate representatives of the community and community groups without any influence from Halite Energy and who should not have a controlling influence. The agenda should be set by the liaison group and all matters raised or requests for information should where possible be met by Halite Energy.

Similarly the presence of a local community liaison coordinator and the opportunity for workshops should reflect the geography of the area and the origin of local interest.

The County Councils own Statement of Community Involvement as part of the Minerals and Waste Development Plan Framework encourages communication with young people through information being sent to youth and community groups and
contact made with schools, colleges and universities. It is acknowledged that Halite Energy Limited would seek the approval of the Local education authority to invest in the local radio station’s initiative to create an advertisement, but it is considered that this does not reflect the intentions of the Development Plan Framework and the use of the local radio stations initiative would be an inappropriate tool to advertise the proposal.

Where and when public exhibitions will be held should be identified along with how these will be advertised and information circulated in which local newspapers. It would also help to state how regularly news letters will be published.

Table 33 to Part One sets out the steps already taken as part of the SOCC and a timetable for pre application consultation. This will need reviewing given the elapse of time.

There appears to be some inconsistency between the paragraphs relating to responding to the consultation. Paragraph 4.2 Page 31 and paragraph 1.11 on page 44 set out how comments will be recorded and addressed in a Consultation Report to be submitted to the IPC. The paragraphs set out the same intentions but are titled differently leading to some element of confusion as to the true purpose.

Halite Energy Limited (Page34, Para 4.23) advise that following the consultation process and prior to the submission of the application, they will consult on the application proposals and provide feedback on how the consultation has influenced the design of the facility and that a report summarising the consultation process will be submitted as part of the IPC application. However, it is not clear how this will be achieved and does not appear to have been factored into the timetable. Halite Energy Limited stated that the consultation period would run through January and February 2011 and that the application would be submitted at the beginning of March 2011. However, the company has subsequently advised that the consultation period will commence in May 2011 and that their proposals are not likely to be submitted to the IPC until the autumn of 2011 at the earliest. The SOCC would need amending to reflect such.

Section 5, Para 5.3 quotes advise issued by the IPC regarding the balance between providing well developed details which may only be possible after extensive project development work and a less precise definition which can be amended in the light of consultation.

Canatxx, and subsequently Halite, have always maintained that the information held to support their previous and proposed schemes is extensive although acknowledge that in light of the outcomes of previous applications there is a need to collate further information on particular issues. Two plans relating to the proposed red edge of the DOS and an indicative master plan are included in the SOCC. For the consultation to be meaningful there needs to be sufficient information to enable constructive comment to be made. It is considered that given the history of the site and the information available to Halite that the supporting information and indicative layout is insufficient to sufficiently inform on the project and that notwithstanding the balance set out in the IPC Guidance Note 1 (Para19) that more detail should be provided to enable a more detailed understanding of the proposal and the opportunity to constructively question and comment.
The Schedule 1 list identifies statutory consultees and those who would be consulted on the proposal. Reference to Thornton Cleveleys Parish Council should be deleted (there is no such parish council; and Garstang is a Town Council not a Parish. It is also considered that the Marine Management Organisation (MMO) should be consulted in view of the potential impacts from brine discharge.

Whilst there is a commitment to record and consider any views expressed and report how they may have (or not) influenced the final design of the project, there does not appear to be any intention to evaluate the consultation exercise to identify the success or otherwise of it and what weight is attached to the need or otherwise for changes. It is strongly recommended that provision be made for the consultation process to be evaluated and that such evaluation be part of the Consultation report to be submitted to the IPC.

Recommendation
That Halite Energy Limited be requested to consider the views set out in the 'Assessment of the Statement of Community Consultation Strategy' section of the report and for those views to be addressed as part of the preparation of the final Strategy as part of the Statement of Community Involvement.
For the attention of Adrian James

Dear Adrian,

Wyre Borough Council has the following comments on the SOCC, which despite the lateness of the response, I hope you will take into account in drafting the final SOCC. These comments are made on behalf of the council under delegated powers granted to me under the council’s Constitution.

The comments are on a page by page basis.

1. There needs to be an index page

2. page 24, para 4.1

I am concerned that there is still reference to additional community consultation if the scheme is amended significantly as a result of the consultation process. I would rather that this said materially otherwise there appears to be too much scope for the submitted scheme to be very different from the scheme consulted on.

3. page 26, para 4.8

Does reference to previous applications include the pipeline application or just the main infrastructure applications dealt with by LCC?

4. page 28 para 4.17

No mention is made of the fact that the development is an EIA development and the IPC guidance states that the SOCC needs to state this and that it also needs to state how the preliminary environmental information is to be consulted on. There seems to be no specific reference to the EIA information in the consultation methodology/timetable. It is also interesting to note that the guidance suggests that the local authorities should have the preliminary environmental information available.

Date: 6 December 2010
before being consulted on the SOCC. Whilst we got the scoping report after the SOCC, is that what is meant by 'Preliminary Environmental Information'? (looking at the regs <http://infrastructure.independent.gov.uk/wp-content/uploads/2009/08/uksi_20092263_en.pdf> i am not sure)

5. pages 29-31 table

Community Liaison Panel - who/what is meant by representatives of the local community?
Local Community Liaison Coordinator - what locations? how often?
Workshops - when? where?
Communication with young people - is this consultation or promotion? i do not favour direct involvement of, or presentations to pupils.

Public exhibitions - when? where? – needs to be included in SOCC
Newsletters - frequency?
Media relations - which newspapers?

6. page 33 table

Is this up to date? If so, how can events have taken place already prior to publication of final SOCC?

7. page 34, para 4.23

How will this be done? Does this mean that there will be consultation on the 'final' proposed scheme to be submitted to the IPC? How does this tie up with para 4.1 (comments above).

8. page 36/37

There is no Thornton Cleveys PC (raised previously!), Garstang is a Town Council not a Parish (also raised previously!).
Should the Marine Management Organisation (MMO) not be included? (i dont know much about them but they were at the outreach meeting for the Walney Windfarm scheme).

9. page 42-44

This is the same table as on pages 29-31 - why repeat it?

10. page 44 para 1.11

Is this not duplicating para 4.2 on page 31? If so should they not say the same - why is Our response to local community feedback different to responding to the consultation - confusing!

Yours sincerely

Garry Payne
Director of Planning and Regeneration

Do you have a compliment, complaint or suggestion about any of our services? Please contact our Corporate Feedback Co-ordinator on 01253 891000
List of section 42 – schedule 1 consultees and local authorities consulted from November 2010 to January 2011

<table>
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<th>Consultee</th>
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<tr>
<td><strong>Central/Regional Government</strong></td>
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<td>Department of Business Enterprise &amp; Regulatory Reform</td>
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<td>Department of Energy &amp; Climate Change</td>
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**Other Consultees**

- Alkali with Preesall Angling Club
- Bowland End Golf Club
- Churches together in Poulton and Carleton
- CPRE
- Fleetwood Civic Society
- Flyde Coast Bridleways Association
- Knott End Golf Club
- National Association of Fisheries & Angling Consultative Group
- NW and North Wales Sea Fisheries Committee
- NW Association of Sea Angling Clubs
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<tr>
<td>Environment Agency National - Ms Amy Heys - PO Box 519, South Preston, PR5 8GD</td>
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<tr>
<td>Environment Agent Regional - Mr Neil Martin - Environmental Health Officer, Wyre Borough Council, Civic Centre, Breck Road, Poulton-le-Fylde, FY6 7PU</td>
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<td>Commission for Architecture and the Built Environment - Ms Amy Hook - 1 Kemble Street, London, WC2B 4AN</td>
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<td>The relevant Regional Development Agency</td>
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<tr>
<td>North West Regional Development Agency - Mr Alan Park - Renaissance House, Centre Park, Warrington, Cheshire, WA1 1QN</td>
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<tr>
<td>The Equality and Human Rights Commission - Mr Trevor Phillips - 9 More London, Riverside, Tooley Street, London, SE1 2RG</td>
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<tr>
<td>The Commission for Sustainable Development - Ms Jane Ashley - Room 101, 3-8 Whitehall Place, London, SW1A 2HH</td>
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<td>Quadrant Pipelines Ltd - Ocean Park House, East Tyndall St, Cardiff, CF24 5GT</td>
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<td>SSE Pipelines Ltd - Mr Doug Hershey - 55 Vastern Road, Reading, RG1 8BU</td>
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<td>Energetics Electricity Ltd - International House, Stanley Boulevard, Hamilton International Technology Park, Glasgow, G72 0BN</td>
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<td>Support Officer, Wyre Borough Council, P</td>
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<td>O Box 78, County Hall, Preston, PR1 8XJ</td>
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<td>Mr &amp; Mrs Darryl &amp; June Jackson</td>
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<td>Eunice Curwen - West Boundary Farm, Pilling, Preston, PR3 6SJ</td>
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26 November 2010

Dear

Proposed application to the Infrastructure Planning Commission for an underground gas storage facility at Preesall, Lancashire to be submitted by the Halite Energy Group Ltd

Halite Energy Group Ltd (“Halite”) is preparing an application for a Development Consent Order (“DCO”) to authorise the company to construct and operate an Underground Gas Storage (UGS) Facility at Preesall in Lancashire (“the Project”). It is proposed that the application for the DCO will be submitted to the Infrastructure Planning Commission (IPC) in 2011. Halite is currently at the pre-application stage and is consulting informally with the statutory and other consultees and the local community on its indicative proposals.

Halite Energy Group Limited is a UK registered company that has taken over the proposals for a UGS Facility at Preesall from Canatxx Gas Storage Limited (CGS). Halite has introduced new senior management and a new management approach to the project. In preparing the indicative proposals for the application for a DCO, Halite has had regard to previous unsuccessful planning applications made by CGS and has carried out an exercise to address the planning concerns raised in respect of the previous CGS proposals.

We enclose a summary document outlining details of the Project for your review. A full copy of this document, along with our Due Diligence report (which sets out the approach taken to address the planning concerns raised in respect of the previous planning applications) is available on our website at www.halite-energy.co.uk should you wish to view the documents in their entirety.
As this is an informal consultation at this stage, there is no statutory time limit within which your response should be made. However, we would be grateful if you could provide any comments by 24th December 2010. If you require any further information or wish to meet to discuss anything related to the Project please contact me on 01772 672244 or email me at bruce.gibson@halite.net.

We trust that the enclosed Report is useful and we welcome your comments.

Formal consultation with statutory consultees and the community is expected to commence in January 2011. We will be contacting you again at that stage. We would be grateful if you could acknowledge receipt of this letter.

Yours faithfully

Bruce Gibson
Senior Project Manager
4 April 2011

Dear

Halite Energy Group Limited

Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire

Section 42 Planning Act 2008
Infrastructure (Applications : Prescribed Forms and Procedure) Regulations 2009 ("APFP Regulations")
Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 ("EIA Regulations")

Halite Energy Group Limited ("Halite") is consulting on its proposals for developing an underground natural gas storage facility at Preesall, Lancashire which include a pipeline extending to the National Grid National Transmission System at Nateby and a brine discharge pipeline from Preesall which extends off-shore from Fleetwood ("the Project"). The proposed Project will include up to 19 underground gas storage caverns with a capacity to store up to 900 million cubic metres of natural gas. This will provide approximately 600 million cubic metres of "Working Gas".

As the proposed development falls within the definition of "nationally significant infrastructure" the application for approval of the Project (termed a Development Consent Order or DCO) will be determined by the Infrastructure Planning Commission ("IPC"). The requirements for applications to the IPC for a DCO are set out in the Planning Act 2008 and subsequent guidance issued by the Government and the IPC. Further information on the IPC process can be found on the IPC website at http://infrastructure.independent.gov.uk

This letter is sent to you as part of a statutory consultation exercise carried out pursuant to Section 42 of the Planning Act 2008, the APFP Regulations and the EIA Regulations.

We believe that you may have an interest or right in land that falls within the proposed application site for the DCO or may be affected by the Project.
You may have already been contacted by our land referencing agents, LRS, and/or our appointed property agent (PK Land Agency - Will Bashall) regarding the proposed Project and how it may affect your land interests. We will seek to continue that dialogue with you both during and beyond this stage of the consultation process.

Pursuant to the consultation, we enclose:

1. A Project Overview which provides information about the Project and an indicative masterplan showing the location of the proposed development.

2. A DVD which contains a Preliminary Environmental Information Report ("PEI") and non-technical summary of the PEI prepared in accordance with the EIA Regulations. A full description of the proposed Project is contained in the PEI at chapter 2. The DVD contains the consultation documents and technical reports relating to the Project which are listed in table 1 overleaf.

3. A copy of a public notice published in accordance with Section 48 of the Planning Act 2008. This provides details of the proposed application for a DCO and the consultation process.

Halite is seeking the opinion of statutory consultees as well as various other bodies, organisations and the public in relation to the Project. Your responses to this consultation exercise will be taken into account in our continued development of the Project prior to submission of our proposed application to the IPC for a DCO and will also be reported to the IPC when our application is eventually submitted.

This is a formal part of the consultation process. We would be grateful to receive your comments or representations on the proposed Project in the following ways:

- in writing addressed to: Halite Energy Group (Preesall Underground Gas Storage Facility Consultation) FREEPOST RSRC-UETY-CHSU Unit 5, St Georges Court, St Georges Park, Kirkham, Lancashire PR4 2EF
- by email to: community@halite.net
- Call Halite Energy on: 01772 672244
- Complete the consultation questionnaire (available on the Project website www.halite-energy.co.uk and at public exhibitions) and then either hand it back to us at one of our face to face events, or post it to us at the freepost address on the questionnaire.

Please reply with your comments or representations by 27 May 2011 at the latest. However, we would be pleased to continue dialogue on any issues of concern beyond this period.

If any significant changes are made to the Project design as a result of feedback received during the consultation, there may be a need for further consultation on such revised proposals. We will update you on the next steps in the process and likely timing for the proposed application for a DCO following this stage of the consultation.

Hard copies of consultation documents and additional DVD’s can be provided upon request to Halite Energy (contact details below).

Consultation documents and further information relating to the Project (including details of our parallel community consultation and programme of public exhibitions) can also be obtained from Halite’s Project website: www.halite-energy.co.uk.

Should you have any queries or wish to discuss this letter or the consultation documents, please contact Halite on 01772 672244 or by email to community@halite.net

Yours sincerely,

Keith Budinger
Chief Executive.
<table>
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<th>Non-technical summary available</th>
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Halite Energy Group Limited

Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire

Section 42 Planning Act 2008
Infrastrucrure (Applications : Prescribed Forms and Procedure) Regulations 2009 ("APFP Regulations")
Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 ("EIA Regulations")

Halite Energy Group Limited ("Halite") is consulting on its proposals for developing an underground natural gas storage facility at Preesall, Lancashire which include a pipeline extending to the National Grid National Transmission System at Nateby and a brine discharge pipeline from Preesall which extends off-shore from Fleetwood ("the Project"). The proposed Project will include up to 19 underground gas storage caverns with a capacity to store up to 900 million cubic metres of natural gas. This will provide approximately 600 million cubic metres of "Working Gas".

As the proposed development falls within the definition of "nationally significant infrastructure" the application for approval of the Project (termed a Development Consent Order or DCO) will be determined by the Infrastructure Planning Commission ("IPC"). The requirements for applications to the IPC for a DCO are set out in the Planning Act 2008 and subsequent guidance issued by the Government and the IPC. Further information on the IPC process can be found on the IPC website at http://infrastructure.independent.gov.uk

This letter is sent to you as part of a statutory consultation exercise carried out pursuant to Section 42 of the Planning Act 2008, the APFP Regulations and the EIA Regulations.

You are consulted in respect of the proposed application in your capacity as a statutory consultee as prescribed by Schedule 1 of the APFP Regulations and/or a consultee under section 42 Planning Act 2008.
Pursuant to the consultation, we enclose:

1. A Project Overview which provides information about the Project and an indicative masterplan showing the location of the proposed development.

2. A DVD which contains a Preliminary Environmental Information Report ("PEI") and non-technical summary of the PEI prepared in accordance with the EIA Regulations. A full description of the proposed Project is contained in the PEI at chapter 2. The DVD contains the consultation documents and technical reports relating to the Project which are listed in Table 1 overleaf.

3. A copy of a public notice published in accordance with Section 48 of the Planning Act 2008. This provides details of the proposed application for a DCO and the consultation process.

Halite is seeking the opinion of statutory consultees as well as various other bodies, organisations and the public in relation to the Project. Your responses to this consultation exercise will be taken into account in our continued development of the Project prior to submission of our proposed application to the IPC for a DCO and will also be reported to the IPC when our application is eventually submitted.

This is a formal part of the consultation process. We would be grateful to receive your comments or representations on the proposed Project in the following ways:

- in writing addressed to: Halite Energy Group (Preesall Underground Gas Storage Facility Consultation) FREEPOST RSRC-UETY-CHSU Unit 5, St Georges Court, St Georges Park, Kirkham, Lancashire PR4 2EF
- by email to: community@halite.net
- Call Halite Energy on: 01772 672244
- Complete the consultation questionnaire (available on the Project website www.halite-energy.co.uk and at public exhibitions) and then either hand it back to us at one of our face to face events, or post it to us at the freepost address on the questionnaire

Please reply with your comments or representations by 27 May 2011 at the latest. However, we would be pleased to continue dialogue on any issues of concern beyond this period.

If any significant changes are made to the Project design as a result of feedback received during the consultation, there may be a need for further consultation on such revised proposals. We will update you on the next steps in the process and likely timing for the proposed application for a DCO following this stage of the consultation.

Hard copies of consultation documents and additional DVD’s can be provided upon request to Halite Energy (contact details below).

Consultation documents and further information relating to the Project (including details of our parallel community consultation and programme of public exhibitions) can also be obtained from Halite’s Project website: www.halite-energy.co.uk

Should you have any queries or wish to discuss this letter or the consultation documents, please contact Halite on 01772 672244 or by email to community@halite.net

Yours sincerely,

Keith Budinger
Chief Executive.
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- in writing addressed to: Halite Energy Group (Preesall Underground Gas Storage Facility Consultation) FREEPOST RSRC-UETY-CHSU Unit 5, St Georges Court, St Georges Park, Kirkham, Lancashire PR4 2EF
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Yours sincerely,

Keith Budinger
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Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire

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This letter is sent to you as part of a consultation exercise to consult with the community and key community bodies pursuant to Section 47 of the Planning Act 2008.
Pursuant to the consultation, we enclose:

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Hard copies of consultation documents can be provided upon request to Halite Energy (contact details below). Where appropriate, a reasonable charge will be made for hard copies of consultation documents (£500 for a full set of reports and drawings) and £15 each for a DVD containing the files. Non-technical summaries of documents will be provided free of charge.

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Table 1
25 July 2011

Dear

Halite Energy Group Limited

Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire

On 4 April 2011 we wrote to you regarding the above Project as part of our consultation. You will have received consultation documents in order that you could provide feedback and comments on our proposals.

Our consultation period has now ended. As we have not received a response from you we assume that you have no comments to make.

If you would like further updates about our proposals please visit our website, www.halite-energy.co.uk. In August we will be publishing an interim feedback report on the consultation undertaken to date which will be available to download from our site.

Please do not hesitate to contact our office on 01772 672244 should you require any further information.

Yours sincerely

Keith Budinger
Chief Executive
Halite Energy
Dear

Halite Energy Group Limited

Proposed Underground Natural Gas Storage Facility, Preesall, Lancashire

Feedback on Consultation

Thank you for your participation in our recent consultation which began on 4 April 2011 in respect of our proposed application to the Infrastructure Planning Commission (IPC) for a development consent order to construct and operate an underground gas storage facility at Preessall, Lancashire (the Project). I am enclosing a Feedback Report in order to provide you and members of our local community with feedback on the consultation. More detailed information on the consultation process will be included in our statutory Consultation Report which will be available to all consultees when our formal application to the IPC is made.

A crucial part of our preparation for the proposed application to the IPC is a thorough and effective consultation with the community and all those who may be affected by our plans. We very much appreciate the time that people have taken to share their views and opinions on our proposed Project with us.

In the enclosed report you will find a summary of the main issues, concerns and suggestions that have been raised with us during the consultation. It also details the changes that have been made to our proposed Project as a result of this feedback.

We have summarised the feedback received up until 31 July 2011 in a table which begins on page 23 of the enclosed report. If you have any concerns or queries on how we have summarised your comments or on any other aspect of the report we would be grateful to hear from you. Please contact Johanna Bell on 01772 689384 or email Johanna.Bell@halite.net or Bruce Gibson on 07854 749125 or email Bruce.Gibson@halite.net.

Yours sincerely

Keith Budinger
Chief Executive
Halite Energy
Mr K Budinger  
Chief Executive  
Halite Energy Group  
Unit 5 St Georges Court  
Kirkham  
Preston  
Lancashire  PR4 2EF

Dear Mr Budinger

Subject: Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire

I refer to your letter dated 4 April 2011 which has been passed to me for response.

The Water Services Regulation Authority (Ofwat) is the economic regulator for the water and sewerage companies of England and Wales. Your correspondence relates to essentially a local matter in respect of impacts on water and sewerage service provision and in this respect the relevant water company/companies local to the area and the Environment Agency are your key Statutory Consultees. We expect that normal commercial arrangements will apply and that planning matters related to water and sewerage service provision will be resolved locally.

I confirm that we therefore do not have any comments.

Yours faithfully

On behalf of Water Services Regulation Authority (OFWAT)
14 June 2011

Mr K Budinger
Chief Executive
Halite Energy Group
Unit 5 St Georges Court
St Georges Park
Kirkham
Preston
PR4 2EF

Dear Mr Budinger

Re: Consultation Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to Construct and Operate Underground Natural Gas Facility at Preesall, Lancashire

I write with respect to your letter to Wendy Swift, Chief Executive of NHS Blackpool, dated 4 April 2011, which she has passed to me for response.

Following a discussion with Mr Brian Stanley from Halite Energy, I can confirm that NHS Blackpool has no facilities in the area covered by the proposed natural gas facility at Preesall in Lancashire. Additionally, we have no services to residents of the Preesall area, as our boundary of operation is confined, generally, to the Blackpool Unitary Authority area.

However, I understand from our discussion with Mr Stanley that working in partnership with colleagues in North Lancashire Primary Care Trust and the Health Protection Agency, a health impact assessment is underway with regards to this proposed development. I would be grateful if we could receive a copy of the health impact assessment, when completed, for discussion with my Public Health colleagues, here in Blackpool Primary Care Trust.

I can confirm, therefore, that at this stage we have no comment to make with regard to your consultation, other than to be kept informed of the progress of your application, under Section 42 of the 2008 Planning Act.

Yours sincerely

Richard Emmess
Director of Partnerships

Health... at the heart of life in Blackpool
Dear Mr Budinger

Re: Nationally Significant Infrastructure Project for Gas Storage Facilities at Preesall, Lancashire,

Natural England reference CCLP/21

Developer: Halite Energy Group Limited
Consultant: David Hoare, Principle Consultant – Environment, Hyder Consulting

EPS mitigation licences required under the Conservation of Habitats and Species Regulations 2010:
Bats and great crested newts
Other protected species licences required: N/A

Natural England has been informed that Halite Energy Group Limited will shortly be submitting an application to the Infrastructure Planning Commission (IPC) for a Development Consent Order (DCO) in respect of the proposed underground Gas Storage Facilities in Preesall, Lancashire. This letter clarifies Natural England’s position with regard to European Protected Species (EPS) licences which would be required in relation to your proposals.

For Nationally Significant Infrastructure Projects which require protected species licences, Natural England would normally review draft licence applications before the development application is submitted to the IPC. Once content that the licence applications are of the required standard, we would issue a ‘letter of comfort’ to the developer which could be included in the application pack to the IPC. Such letters of comfort are designed to provide the IPC with confidence that the competent licensing authority is satisfied that a licence can be issued, subject to the DCO being granted by the IPC. Following the granting of a DCO, the developer would then formally apply for the licences, based on the draft application already considered, which would then be issued without delay. It should be noted that if circumstances on site have changed, or timings to proposed works have changed, then the onus would then be on the developer to provide Natural England with a modified licence application, including updated survey information if necessary, which would enable Natural England to issue the final licence.
With respect to the Gas Storage proposals at Preesall, we understand that as you wish to submit your application to the IPC imminently the timeframes associated with the process outlined above are now unrealistic. Given the above process is relatively new, we propose in this instance to work with both yourselves and Hyder Consulting with a view to issuing required letters of comfort as soon as possible, following submission of your application to the IPC. With that in mind I would suggest that you submit the draft mitigation licence applications (for bats and great crested newts) to Natural England within 3 months of submitting your application to the IPC and, at the very latest, prior to the conclusion of the ‘pre-examination’ period of the IPC application process. We would ask that you inform us when you submit your application to the IPC and your expected timetable for submitting draft species applications so we can manage our resources to enable a timely assessment process and to facilitate the required licensing assessments. Please mark all correspondence ‘For the attention of Kathryn Murray and John Gordon’.

Please note that Natural England seeks to reassure the IPC that our decision to provide this ‘holding letter’ to you does not in any way set a precedent for other cases.

Yours sincerely

Dr Kathryn Murray

Senior Specialist – European Protected Species Licensing
30 June 2011
Our ref: 23585
Your ref:

Halite Energy Group
Unit 5
St Georges Park
Kirkham
Preston
Lancashire
PR4 2EF

BY EMAIL ONLY to info@halite.net

Dear Sirs,

Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Storage Facility for Natural Gas along with associated infrastructure including Buildings, Apparatus and Gas Pipeline at Preesall Saltfield, Lancashire

Thank you for your consultation on the above dated 10 May 2011, which was received by Natural England on 13 May 2011, and for allowing us extra time in which to reply.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

We are generally pleased with how the environmental report is progressing and can offer the following more detailed advice:

Soils and Land Quality

Having examined the scheme, in the light of the Development Management Procedure Order (2010) Schedule 5, Para x, we are of the opinion that this proposal does not appear to raise any significant agricultural land quality or soil resource protection etc considerations arising from our statutory land-use remit, but would offer the following observations:

Subject to the pipeline route and any other temporarily disturbed areas being reinstated without damage to the soils, and the actual Underground Gas Storage Facility, having a relatively small permanent surface footprint (say < 5 hectares), then the Agricultural Land Classification (ALC) grading of the land affected, is unlikely to be a key planning consideration in the determination of this application.

Nevertheless, it is important that the soil resources from the site should be conserved and re-used sustainably, particularly the topsoil and upper subsoil. Further guidance is available in the Defra “Construction Code of Practice for the Sustainable Use of Soils on Construction Sites” (PB13298):

Soil is a finite resource that fulfils many important functions and services for society (ecosystem services), for example as a growing medium for food, timber and other crops, as a store for vast...

Soil handling and storage are important in safeguarding the soil’s ability to fulfil these ecosystem services. Defra’s “Good Practice Guide for Handling Soils” provides appropriate guidance on these matters:

The proposal raises interesting challenges as regards the possible disturbance of nesting birds (March to August) and over-wintering birds (September to March). In terms of minimising the potentially adverse impacts on soils / land quality, and facilitating the highest practicable standard of reclamation, we would normally favour such works being completed during the months April – October inclusive.

Natural England would therefore recommend that you develop a soil management strategy and give early consideration to the most sustainable way to move, store and use soils within the proposed site, and the beneficial re-use of any surplus soils arising from the development. Optimum periods in which to handle soils may conflict with the bird breeding season or over-wintering birds, along with disturbance to hedgerows along the pipeline route. Natural England recommends that scrub and ground clearance, vegetation removal, drainage works, or any other activity on land which has lain undisturbed for some time, shall be avoided during the main bird breeding period (1st March to 1st August inclusive), unless the area concerned had been shown to be free of nesting birds, following a robust survey by a suitably qualified person, immediately prior to such works commencing. (This is adopted in minerals cases where there would be ground disturbance.) This should be taken into account and presented in a management strategy as part of the submission for the Development Consent Order.

Biodiversity

Natural England is satisfied with the content suggested, but does have concerns about the lack of survey information for areas where you have been denied access to land for survey purposes. We are aware that you are progressing this matter. We note the comments in the report and we look forward to further consultation and discussion in due course.

Landscape

Conserving and enhancing the English landscape is a core part of Natural England’s general purpose. As a statutory consultee to the planning system we need to ensure landscape issues and opportunities are taken into account in development management (formerly referred to as development control) especially when developments are subject to the Environmental Impact Assessment (EIA) process. Our statutory purpose includes conserving and enhancing the landscape. The Natural Environment and Rural Communities Act 2006 makes it clear that we should conserve and enhance the English landscape for aesthetic, cultural and historic purposes as well as for habitat protection purposes.

We have adopted the European Landscape Convention definition of landscape as “an area, as perceived by people, whose character, is the result of the action and interaction of natural and/or human factors”. We have been tasked with and are leading on the implementation of the European Landscape Convention in England on behalf of Government. As our landscapes are a key resource, Natural England advocates that the changing landscape should be managed sustainably, be highly valued and a distinctive expression of local identity. We recommend that you take all aspects of landscape, including landscape character and quality and townscape, into consideration when preparing your submission. Further information on all aspects of landscape and landscape planning can be found on our website via the link below:
Natural England’s Position on Landscape states that landscapes are key resources for the nation; fundamental to the delivery of our creative, integrated, forward looking programme for the natural environment. They provide the physical settings of everyday life, are an important expression of the relationship between people and place, and they deliver a wide range of ecosystem goods and services.

All EIA include a Landscape & Visual Impact Assessment (LVIA). The Directive requires a description of the aspects of the environment likely to be significantly affected by the development, including population, fauna, flora, soil, water, air, climatic factors, material assets (including architectural and archaeological heritage), landscape and the inter-relationship between the above factors. In this instance the site does not fall within a designated landscape, nor does a designated landscape lie adjacent to the site. However, the Forest of Bowland AONB lies within 5km of the NTS feeder near Garstang and the impact of the installation in respect of the AONB should be fully examined.

Natural England is satisfied with the scope of the report so far, and considers that with careful planning, design and mitigation the project could be accommodated within the landscape. We would rely on the Local Planning Authority with their particular local knowledge and expertise, to advise on precise details in accordance with their own polices and the Lancashire Landscape Character Assessment. We do however have concerns about displacement of SPA birds from foraging and roosting areas through additional mounding and planting that is planned as part of the proposal, and would want you to discuss this in more detail with ourselves, landscape colleagues and the RSPB. Again we look forward to further discussion and consultation in due course.

Marine Ecology

The project has the potential to impact upon the marine environment through two main pathways:

1. Through the introduction of terrestrially derived sediment into the Wyre estuary during construction.
2. Through the discharge of super saline brine into the east Irish Sea via a diffuser off the Fylde coast.

Natural England was consulted upon a project during a prior application for gas storage under the river Wyre through the developer Canatxx. It was Natural England’s opinion that neither the introduction of suspended sediment into the river Wyre nor the proposed discharge of brine would significantly affect any designated site or known feature of conservation importance. It is our understanding that Halite’s construction plan will infer a similar construction methodology and brine disposal methodology to the Canatxx proposal. No information has been provided which indicates the physical and biological characteristics of the disposal site have changed from the previous proposal. Consequently Natural England does not feel that a review of the (granted) discharge consent is required and continue to hold the opinion that project will not have any significant impact on any designated feature. We would like to make some comment on the content of the ‘Preliminary Environmental Information document’.

Under table 13.1 ‘Receptors potentially effected’ it is not clear what is meant by the specific receptor - Morecambe Bay. It is not clear whether this refers to the larger general area of Irish Sea around the north Lancashire coastline or the Morecambe Bay SAC. For clarity we would recommend that this be amended, for two reasons.

1. The Morecambe Bay SAC is not the only designated site with the potential to act as a receptor; other sites include Shell Flats SAC, Lune Deep pSAC and Liverpool Bay SPA.
2. We would recommend that Halite assess the impact of brine discharge on a receptor which incorporates the wider Morecambe Bay Fylde coast region. This should include reference to both statutory designated sites but also the wider ecological impact to habitats along the Fylde coast which exist outside of a designated site.
We feel the second point is important because although we do agree that the discharge of brine into the Irish Sea is unlikely to affect any designated site, annex 1 habitat or BAP priority habitat, the area around the diffuser will likely suffer a reduction in benthic and demersal abundance and diversity. For example it will take 500 metres for the salinity to return to 5% of the ambient concentration.

The consultation should acknowledge this impact but state whether it feels this impact is of scale that it will not impact the wider ecological functioning of the surrounding marine environment. It should also outline that the specific location and operation of the diffuser will reduce this impact to a minimum and that a robust programme will be in place to monitor the condition of the site and verify the claims of dispersal and likely demersal impact made in the EIA.

We also consider the report should provide information about any contaminants in the salt/brine, and how they would be dealt with, i.e. would they be removed prior to discharge to the marine environment or remain and discharged in the super saline brine.

**Biodiversity Duty**

Biodiversity is a core component of sustainable development, underpinning economic development and prosperity, and has an important role to play in developing locally distinctive and sustainable communities. All local authorities and other public authorities in England and Wales have a Duty to have regard to the conservation of biodiversity in exercising their functions. The Duty aims to raise the profile and visibility of biodiversity, to clarify existing commitments with regard to biodiversity and to make it a natural and integral part of policy and decision making.

The Duty is set out in Section 40 of the Natural Environment and Communities Act (NERC) 2006 and states that:

"Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity".

The advice given by Natural England in this letter is made for the purpose of the present consultation only. Should you wish to discuss this response please do not hesitate to contact me at the above address.

Yours faithfully

Mrs Janet Belfield  
Lead Adviser  
Land Use Operations - Crewe  
Direct dial:  
Email:  

CC's Natural England:  
Mark Johnston  
Mike Young  
Peter Close

CC Hyder Consulting:  
David Hoare
21st September 2011

Dr S Preuss MRTPI
Senior Town Planner, Land & Development
National Grid
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

Dear Dr Preuss

Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire

Thank you for your letter of the 27th May 2011 in response to our Project.

We have noted your comments regarding the National Grid gas transmission assets at:
• Feeder 15 – Lupton to Bretherton
• Feeder 21 – Carnforth to Treales
and we have removed any references previously made to “Transco”.

We have also noted your comments regarding National Grid high voltage electricity overhead transmission lines.

• VF 400kV overhead line from Stanah substation to Penwortham substation
• 4TD 400kV overhead line from Hambleton Tee to Heysham substation
also the location of the Stanah 400kV substation.

In regards to your specific comments we have noted the location of the NG 4TD 400kV overhead line to the west of Feeder 21 and included this in our NTS interconnector pipeline report and Environmental Statement.
We will take due account of your guidance and access requirements subject to approval of the Underground Gas Storage project.

It is my understanding that we have agreed terms with your company for an option for a deed of grant of easement for the installation of our 2 x 132kV underground cables across your property to the Electricity North West substation also on your property at Stanah.

We agree that the existing and planned equipment at the substation site should be taken into account in our detailed design of the underground cable connections proposed for the project and look forward to consulting with your good selves in regard to this and other aspects of the project which infringe on your assets as listed above.

Kind regards.

Yours sincerely

BRUCE GIBSON
Senior Project Manager
Halite Energy Group  
(Pресэлл Underground Gas Storage Facility Consultation)  
Unit 5  
St Georges Park  
Kirkham  
Lancashire  
PR4 2EF

Submitted via email to: community@halite.net

27th May 2011

Dear Sir/Madam,

Re: Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct an Underground Natural Gas Facility at Presesa, Lancashire

I refer to your letter dated 4th April 2011 regarding the above. Having reviewed the consultation documents I would like to make the following comments.

National Grid Infrastructure in the vicinity of the proposed area of works

National Grid has the following gas transmission assets located within or in close proximity to the proposed area of works:-

- Feeder 15 - Lupton to Bretherton;
- Feeder 21 - Carnforth to Treales.

These gas transmission pipelines are owned and operated by National Grid (references in the project documentation to “Transco” (e.g. on maps) should be removed and replaced by “National Grid”).

In addition, National Grid high voltage electricity overhead transmission lines are crossed by or are located in close proximity to the proposed area of works. These lines form essential parts of the electricity transmission network in England and Wales. The details of the overhead lines are as follows:-

- VF 400kV overhead line from Stanah substation to Penwortham substation;
- 4TD 400kV overhead line from Hambleton Tee to Heysham substation.

The following National Grid electricity substation is also located within close proximity to the proposed area of works:

- Stanah 400kV substation (The 400kV substation is situated adjacent to the 132kV substation at Stanah owned by Electricity North West Ltd. Both substations are located on land which is in National Grid’s ownership.)

I enclose a copy of a plan showing the location of National Grid’s gas and electricity transmission assets in the vicinity of the proposed area of works.
Specific Comments

The Preliminary Environmental Information Report (PEIR) makes no reference to National Grid's overhead electricity transmission lines which are crossed by or are located in close proximity to the proposed area of works. In particular, the proposed pipeline route to the National Transmission System crosses National Grid's 4TD 400kV overhead line in an area to the west of the proposed connection to Feeder 21. We would request that the potential impact of the proposed Gas Pipeline on the existing electricity transmission assets is considered in any subsequent reports, including in the Environmental Statement, and as part of any subsequent application.

National Grid's overhead lines and substation form an essential part of the electricity transmission network in England and Wales. The following points should be taken into consideration:

- Statutory electrical safety clearances must be maintained at all times. Any construction cannot be closer than 5.3m to the nearest (lowest) conductor. National Grid will seek to ensure that our tower access is maintained during and after construction. These distances are set out in EN 43 - 8 Technical Specification for 'overhead line clearances Issue 3 (2004) outlined at the following webpage: http://www.nationalgrid.com/uk/LandandDevelopment/DDC/devnearohl_final/appen dixII/appIII-part2

- Further guidance on development near electricity transmission overhead lines is available here: http://www.nationalgrid.com/NR/rdonlyres/1E990FE5-D068-4DD6-8C9A-4D0B06A1BA79/31436/Developmentnearoverheadlines1.pdf

The proposed project includes an underground electricity cable connection to the 132kV substation at Stanah. National Grid owns the land on which both the 132kV and the 400kV substations are located. In addition to the substation equipment, there are overhead lines as well as existing and other planned underground cable connections into the substation site.

The information supplied is given in good faith and only as a guide to the location of our underground cables. The accuracy of this information cannot be guaranteed. The physical presence of such cables may also be evident from physical protection measures such as ducts or concrete protection tiles. The person(s) responsible for planning, supervising and carrying out work in proximity to our cable(s) shall be liable to us, as cable(s) owner, as well as to any third party who may be affected in any way by any loss or damage resulting from their failure to locate and avoid any damage to such a cable(s).

The existing and planned equipment at the substation site should be taken into account in the detailed design of the underground cable connection proposed of this project. National Grid should therefore be consulted on the detailed design of the proposed underground cable connection.

Further Advice

If we can be of any assistance to you in providing informal comments please do not hesitate to contact us at the address below.

National Grid
Land & Development Stakeholder and Policy Manager
Land & Development Team
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

If you require any further information please do not hesitate to contact me.

Yours faithfully,

Dr Stefan Preuss
From: "box.PPRSTeam" <PPRSTeam@uk.ngrid.com>
Date: 27 May 2011 09:10:44 GMT+01:00
To: <Community@halite.net>
Subject: FW: National Grid Plant Enquiry Response - Ref: NW_TW_Z3_S_38096

Regards
Plant Protection Team
National Grid Plant Protection
National Grid, Block 1 Floor 2
Brick Kiln Street
Hinckley
LE10 0NA
E-mail: plantprotection@uk.ngrid.com
Tel: 0800 688 588

E-mail:
plantprotection@uk.ngrid.com

From: GL Plant Enquiries Trial System [mailto:noreply@glplantenquiries.com]
Sent: Wednesday, May 25, 2011 10:52 AM
To: box.PPRSTeam
Subject: National Grid Plant Enquiry Response - Ref: NW_TW_Z3_S_38096

Speculative Development - Ref: NW_TW_Z3_S_38096

National Grid acknowledges receipt of your enquiry received on 25/05/2011.

A standard assessment has been carried out with respect to our operational gas and electricity apparatus.

In the event of these proposed works going ahead at a future date, unless appropriate precautions are taken, they may adversely impact the safety and integrity of our apparatus and place you or your employees and the general public at risk.

Please contact Plant Protection 10 days prior to works, quoting the enquiry reference number.

Works should not be carried out until further consultation has taken place.

See the assessment below for full details.

Apparatus owned by other operators may be present in this area. It is your responsibility to make contact with these operators.
See attached for DigSafe Guidance 'Credit Card'

See attached for National Grid 'Useful Addresses' Flyer

If working in the vicinity of a high pressure gas pipeline the following document must be followed: 'Specification for Safe Working in the Vicinity of National Grid High Pressure Gas Pipelines and Associated Installations – Requirements for Third Parties' SSW22. This can be obtained from:

National High Pressure Gas Pipelines Guidance:

Electricity Overhead Lines Guidance:

Safe digging practices, in accordance with Health and Safety Executive document HSG47, must be used to verify and establish the actual position of mains, pipes, cables, services and other apparatus on site before any mechanical plant is used.

It is your responsibility to ensure that all relevant information is provided to all persons (either direct labour or contractors) working for you on or near National Grid apparatus.

It must be stressed that both direct and consequential damage to gas or electricity apparatus can be dangerous both for your employees and the general public.

Repairs to any such damage will incur a charge. Your works should be carried out in such a manner that we are able to gain access to our apparatus throughout the duration of your operations.

Work carried out without proper consultation is done so at your own risk.

Please note that apparatus owned by other operators may be present in this area. Information with regard to such apparatus should be obtained from the owners.

Should the location, date or nature of your activities change, you must submit another enquiry which reflects the updated details.

If you require further assistance please contact the National Grid Plant Protection team:
Assessment

There is National Grid apparatus directly crossing your Area of Enquiry. Before carrying out any excavation, trial holes must be dug to find the exact position of gas pipes, using recognised and agreed safe hand digging techniques.

Reference should be made to the HSE Guidance Note HSG47 - ‘Avoiding Danger from Underground Services’.

Please read the rest of this message and its attachments carefully for additional information and guidance.

Please contact National Grid well in advance of commencement of works to avoid any delays.

We will require your intended start date.

We advise that you request an up to date version of National Grid’s mains records.

We advise that you submit full details of your finalised proposals to allow National Grid to determine whether apparatus may be affected.

High Pressure National Gas Transmission Major Accident Hazard Pipeline/Installation

There is a High Pressure National Transmission gas major accident hazard pipeline/installation in the vicinity of your enquiry which may be affected by your activities.

Prior to work commencing within the easement of a National High Pressure gas pipeline written permission must be obtained from National Grid. A minimum notice period of seven working days is required before commencement of work.

Our contact telephone number for further information is: 0800 658 588

Electricity Transmission Overhead Line

Our overhead lines are protected by renewable or permanent agreements with landowners. These grant us legal rights that enable us to achieve efficient and reliable operation, maintenance, repair and refurbishment of our electricity transmission network. Hence we recommend that no permanent structures are built directly beneath overhead lines, at least 2 metres clearance is maintained at the base of our towers and unrestricted vehicular access is maintained at all times. Please submit any development proposals around the base of a tower to the National Grid Plant Protection team.

By following the Overhead Line Guidance, links to which are included in this response, work in the vicinity of these lines can generally be carried out without the need to contact National Grid further.

However, having read the guidance, if you need to obtain further support or information please contact the address below.

Electricity Transmission Tower

We recommend that at least 2 metres clearance is maintained at the base of our towers and unrestricted vehicular access is maintained at all times. Please submit any development proposals around the base of a tower to the National Grid Plant Protection team.

Drilling or excavation works should not be undertaken if they have the potential to disturb or adversely affect the foundations or ‘pillars of support’ of any existing tower. These foundations always extend beyond the base area of the existing tower and foundation (‘pillar of support’) drawings can be obtained via the National Grid Plant Protection team.

Guidance
Plant Protection
National Grid
Block 1, Floor 2
Brick Kiln Street
Hinckley
LE10 0NA

Tel: 0800 688 588
Email  plantprotection@uk.ngrid.com

Reporting a Gas Emergency

If you smell gas or are worried about gas safety in Britain, you can call 0800 111 999 at any time, day or night. Your call will not cost you anything. Calls are recorded and may be monitored.

Received Date
25/05/2011

On behalf of Third Party
Organisation Name: halite energy group ltd
Contact Name: Mrs Keith Budingher
Email address: Community@halite.net
Telephone: 01772 672 244
Address: Unit 5, St Georges Court, St Georges Park, Kirkham, Preston, PR4 2EF

Location
Grid Reference: 345611, 446379
X Extent: 1200
Y Extent: 1200
Location Description: FY5 5LR, Underground Natural Gas Facility at Preesall, Lancashire

Recipients
PPRSTeam@uk.ngrid.com

Development Types
Other

Work Types
Not Specified

Map Options
Paper Size: A3
Orientation: Portrait
Requested Scale: 1:2500
Actual Scale: 1:5000 (GAS), 1:5000 (ELECTRIC)
Real World Extents: 1445m x 1835m (GAS), 1445m x 1835m (ELECTRIC)

Description of Works
We are proposing to create an Underground Natural Gas Storage Facility in the salt body at Preesall. Up to 19 caverns would be individually designed and constructed, deep underground and used for the storage of up to 900 million cubic metres* of natural gas. This is significantly less than the previous proposals promoted by Canatxx Gas Storage between 2005-2009. Gas distribution pipelines and manifolds connecting the wellheads and a pipeline that links the gas compound at Preesall to the
Begin forwarded message:

From: "Preuss, Stefan" <
Date: 27 May 2011 16:00:28 GMT+01:00
To: <community@halite.net>
Subject: Re: Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct an Underground Natural Gas Facility at Preesall, Lancashire

Dear Sir/Madam,

Please find attached a response by National Grid to the above consultation.

Yours faithfully,

Dr Stefan Preuss
Senior Town Planner
Transmission Asset Management
National Grid

National Grid House
Warwick Technology Park
Gallows Hill
Warwick, CV34 6DA, UK

Tel.: 01926 (Internal )
Mob.: 
Fax: 01926
Email: 

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You may report the matter by calling us on 0800 085 4806.

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For the registered information on the UK operating companies within the National Grid group please use the attached link:

110527 Halit ..df (31.5 KB)
Speculative Development - Ref: NW_TW_Z3_S_38096

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Assessment

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Reference should be made to the HSE Guidance Note HSG47 - ‘Avoiding Danger from Underground Services’.

Please read the rest of this message and its attachments carefully for additional information and guidance.

Please contact National Grid well in advance of commencement of works to avoid any delays.

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**Guidance**

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See attached for National Grid ‘Useful Addresses’ Flyer


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Electricity Overhead Lines Guidance:
http://www.nationalgrid.com/NR/ndk繇/C185D8B3-F57F-41A6-B4F1-6E28B3510569/44651/02APTElectricityOHILGuidanceV13.doc

Safe digging practices, in accordance with Health and Safety Executive document HSG47, must be used to verify and establish the actual position of mains, pipes, cables, services and other apparatus on site before any mechanical plant is used.

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Plant Protection
National Grid
Block 1; Floor 2
Brick Kiln Street
Hinckley
LE10 0NA

Tel: 0800 688 588

Email: plantprotection@uk.ngrid.com

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Received Date
25/05/2011

On behalf of Third Party
Organisation Name: halite energy group ltd
Contact Name: Mrs Keith Budinger
Email address: Community@halite.net
Telephone: 01772 672 244
Address: Unit 5, St Georges Court, St Georges Park, Kirkham, Preston, PR4 2EF

Location
Grid Reference: 345611, 445379
X Extent: 1200
Y Extent: 1200
Location Description: FY5 5LR, Underground Natural Gas Facility at Preesall, Lancashire

Recipients
PPRSTeam@uk.nergid.com

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For the registered information on the UK operating companies within the National Grid group please use the attached link:

DigSafe_crd....pdf (66.5 KB) OtherAddr...xls (20.0 KB)
Halite Energy Group
(Preesall Underground Gas Storage Facility Consultation)
FREEPOST RSRC-UETY-CHSU
Unit 5
St Georges Court
St Georges Park
Kirkham
Lancashire
PR4 2EF

15 June 2011

Dear Sir/Madam,

Re: Preliminary Environmental Information Report for the proposed underground natural gas facility at Preesall, Lancashire

The proposed project is to create underground caverns in the salt body at Preesall. Once created the caverns will store natural gas which can be supplied to the Gas National Transmission System (NTS) to meet demand. The proposals are similar to schemes that were promoted by Canatxx Gas Storage Limited (CGS) between 2005 and 2009. However the main difference between the projects has been the reduction in size and scale.

We have some concerns relating to the Preliminary Environmental Report. These are as follows;

Firstly, The PEI report states no cumulative assessment against other projects will be undertaken as none are proposed, operational etc. However this should be constantly reviewed as the project develops and the EIA process continues. Also the report states cumulative affects within the project will not be discussed in this report and will be reported in the EIA. I would expect this to be thoroughly covered in the ES.

In Chapter six (Ecology and Nature Conservation), the report outlines the surveys/work undertaken to date. The report states that one marine benthic ecology and habitats survey was conducted in October 2001 in the Irish Sea. The survey is out dated and does not consider temporal (seasonal and/or yearly) variations. I would expect a more thorough assessment considering the implications of such a project on the marine environment. However in section 6.6.49 the report highlights the discussions with NE regards further baseline surveys before construction/operation commences to enable a more detailed baseline to be identified. I strongly feel this survey design needs to be agreed on before work
commences. Monitoring can then take place to make sure the predictions made in the ES are correct. In addition the methods used to undertake the survey are not provided and it makes it difficult to understand what was done and how it was done. This kind of detail should be provided in the ES. I am sure it is presented in another document elsewhere but the ES needs to be a standalone document and thus should be provided.

Generally the Summary of Baseline Information (6.3) is rather vague for intertidal, subtidal habitats, fish/fisheries and plankton, whilst there is plenty of information regarding terrestrial environments/habitats. The report does not mention all the relevant fish species in the area and there is no mention of the shellfisheries (cockles) in the area. This information should be provided even if it is to say the impacts will not be significant. At least it shows that every aspect has been assessed in relation to this proposed project. Also marine mammal’s information in limited and should be expanded for the ES.

Generally the report lacks supporting information to back up its assumptions. I may or may not agree with them but there is no way of verifying them without additional supporting information. Greater detail will need to be provided for the ES. For example, section 6.7.2 makes a statement about recovery taking a comparatively short period of time – compared to what? And where is the supporting evidence to back that up?

Again the report mentions the marine dispersion modelling report but little direct reference is made to it in this report. As already discussed above this kind of information should be provided in the ES, to form a comprehensive document.

I am pleased to see some form of noise and vibration study will be undertaken on marine species, although the exact details are not provided.

The EIA must include an assessment of the environmental effects of those species and habitats on the OSPAR List of Threatened and Declining Species and Habitats.

Cefas is of the opinion that the proposal, due to its location, nature and scale, may warrant an Appropriate Assessment under the Conservation (Natural Habitats & c.) Regulations 1994. However, this decision ultimately lies with Natural England.

We have concerns with regards of the discharge of the brine from the excavation of the gas caverns into the Irish Sea. There was limited information within the report and we need further clarification on the overall amounts to be discharged and the discharge rates over a specified period, salinity and its effects on fisheries supported with appropriate mitigation.

We feel that the comments submitted during the scoping request need to be reviewed and incorporated into the ES. These can be summarised below:

- Fleetwood Fish Docks have been identified as the source of water for the washing of the underground caverns. Section 1.2.26 of the scoping report states that ‘the amount of water required is very large’ such that the use of freshwater is an ‘environmentally unviable option’. Is the quantity of water to be extracted from the fish docks so large that it could impact on navigation and access within the port for the larger fishing vessels?
- Section 1.2.32 refers to the outfall for the saturated brine from the washed out caverns situated 2.3km offshore. There are number of issues associated with this aspect of the development that I would suggest need further clarification.
  o How toxic is the saturated brine, and what are the implications of its release at different times of the year (e.g. around periods of spawning for particular fish species)?
  o Over what sort of period will the brine be released and what are the cumulative effects of such a release? Flow rates and arrangements for screening of intakes/outfalls?
  o Does the position of the outfall impinge on any fishing/ spawning/ nursery grounds/ sensitive habitats?
  o What is the quantity of brine to be released?
  o What is the radius around the outfall over which marine life will be impacted? Are some species particularly susceptible to the saturated brine?
  o What are the implications of current patterns etc... 2.3km is not all that far offshore, so is there any potential for the brine to be carried closer in shore in particular tides or weather conditions? What suspended solids are coming with the brine?

- Presumably the development will require vessels to access the site. Will this impact on the dredging operation in the Wyre estuary? Any environmental implications should be considered both in terms of the dredging operation itself, and also the disposal of the dredged material (i.e. the impacts of the increased quantity of dredged material on the disposal sites).

- The position of the site could impact directly on small-scale inshore fishers targeting shrimp in the estuary itself. Any direct impacts on such fisheries would need further investigation. Displacement of fishing activity should also be considered in respect of the outfall pipe, both in the construction and operational phase.

We feel that further discussion is needed in relation to our concerns regarding the discharge of brine. The local MMO office in Blackpool (Tel: 01253 362 130  Email: Blackpool@marinemanagement.org.uk) will be able to provide more up-to-date and accurate information with regards to these concerns or alternatively we can arrange a meeting.

Additionally, we would recommend the assessment of:

- The congestion of navigation (during construction and operation) and the potential implications.
- Wind farm operators – does it impact upon them potentially
- Is it near to a site used for sand/gravel extraction?

Additional comments

1. In section 6.3.40 of the report, the Latin name of the Atlantic herring is used instead of the common seal’s Latin name.
Overall, the report has highlighted the main issues associated with such a project but lacks the detail required to undertake a full and comprehensive assessment of likely environmental effects. General statements are unsupported and where reference is made to other reports, little detail is provided. Where work is yet to be done, again no detail is provided. This would have given a good opportunity for feedback on proposed future work before the work is undertaken. Several of these comments have been raised in previous advice back in November 2010, of which not all have been addressed and some are still relevant for this current report. I suggest more work is required to inform the ES.

The items highlighted in this letter should be considered in the Environmental Impact Assessment process, and we would like to see the outcome of our suggestions in the subsequent Environmental Statement. However we would not see this letter as a definitive list of all Environmental Statement / Environmental Impact Assessment requirements and other subsequent work may prove necessary.

Furthermore, we have also consulted English Heritage but we have not received their comments as yet. I will forward these on receipt shortly.

If you have any queries about this letter please contact me.

Yours sincerely

[Signature]

Elaine Young
Marine Consents Case Officer
Marine Environment Team
Ms Elaine Young
Marine Management Organisation
Marine Environment Team
PO Box 1275
Newcastle upon Tyne
NE99 5BN

Our ref: NW/Gas
Your ref:
Telephone:
Fax:

16th June 2011

Dear Ms Young,

Halite Energy Group Ltd
Proposed application to IPC – Underground Natural Gas Storage Facility at Preesall
Section 42 Planning Act 2008

Thank you for your email of 18th May 2011 and your kind offer to collate comments regarding the marine development aspects of this project to the Halite Energy Group Ltd.

We have based the following comments on Preesall Underground Gas Storage Facility Preliminary Environmental Information Report, prepared by Hyder Consulting UK Ltd. for Halite Energy Group (dated March 2011). We understand that the project will create underground caverns by solution mining for the storage of natural gas with a 2.3km outfall pipeline for the discharge of saturated brine into the Irish Sea.

Please note that this correspondence is focussed on the outfall component of the proposed project as detailed within Chapter 4 (Archaeology and Built Heritage) of the Preliminary Environmental Information report (as referenced above).

We offer the following comments on the Preliminary Environmental Information report:

1. In section 4.8 ("Further work required to complete the EIA") that a cultural heritage desk-based assessment will be produced and submitted to the County Archaeologist prior to submission of the application for the Development Consent Order. We also noted that the North West Rapid Coastal Zone Assessment, the Lancashire Historic Landscape Characterisation report and the Fleetwood Extensive Urban Survey will be used to prepare the Environmental Statement.
2 We noted that section 4.8.4 very briefly mentions that an assessment of the marine archaeological resource in the Irish Sea study area will also be undertaken. We are therefore concerned that the detailed advice we provided in our response to the EIA Scoping Report consultation (our letter to S. Butler Esq. of the Infrastructure Planning Commission, dated 17th November 2010) is not reflected with this Preliminary Environment Information report. In particular, the reference section should have included the Joint Nautical Archaeological Policy Committee Code of Practice for Seabed Development (revised edition 2006) published by The Crown Estate. We therefore require the Environmental Statement for this project to obtain spatial referenced information on all known seabed wreck and associated archaeological importance from English Heritage’s National Monuments Record Centre and the relevant local authority maintained Histroic Environment Record as a component of the preliminary desk-based assessment. Corroboration will then be necessary with all associated marine survey data (e.g. sidescan sonar, multibeam bathymetry, sub-bottom seismic data and archaeological logging, sampling and interpretation of core material obtained from boreholes) in order to produce the necessary Environmental Statement required to support this proposed project.

3 We again noted reference to a “Construction Environmental Management Plan” and, subject to the satisfactory completion of the marine archaeological assessment we recommend that this plan is expanded to include historic environment objectives, in agreement with the relevant local authorities and English Heritage.

Yours sincerely,

Christopher Pater
Marine Planning Unit

Cc Andrew Davison (English Heritage, Manchester Office)
Owain Lloyd-James (English Heritage, National Advice)
18th July 2011

Mr B Kershaw  
Lancashire Resilience Forum  
Lancashire Constabulary Headquarters  
PO Box 77  
Hutton  
Preston  
PR4 5SB

Dear Mr Kershaw

Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire

Thank you for your response to the consultation on the above project.

I can confirm that our Senior Project Manager, Brian Stanley, will meet with Lancashire Fire and Rescue in August to discuss solutions around a secondary access road for emergency purposes.

The outcome of this discussion will be incorporated into our application to the IPC later this year and we will keep you informed on progress on this matter.

Yours sincerely

Keith Budinger  
Chief Executive  
Halite Energy
12 July 2011

For The Attention Of Mr Keith Budinger
Halite Energy Group
Unit 5 – St Georges Court
St Georges Park
Kirkham
PRESTON
PR4 2EF

Dear Mr Budinger

RE: Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground National Gas Facility at Preesall, Lancashire

I refer to the above and your letter of 4 April 2011 and previous discussions on this matter. I am replying on behalf of the Lancashire Resilience Forum (LRF) to advise you that on 20 June 2011 members of the LRF had the opportunity to meet Mr Brian Stanley to discuss the proposed development.

The main issue arising from the discussions were comments made by the Lancashire Fire & Rescue Service supported by other agencies of a need to ensure that adequate secondary emergency routes were made available.

The LRF are grateful for the opportunity of this discussion and for the sake of completeness and forwarding a copy of this letter to the Infrastructure Planning Commission.

Yours sincerely

[Signature]

Mr Bernard Kershaw
Lancashire County Council Emergency Planning Office
On behalf of Lancashire Resilience Forum
Hello Brian,

My apologies for not getting back to you sooner.

At this stage, having discussed the DVD documentation that you sent to me, with Mr Ian Lonsdale, the Crime Prevention Officer for Northern Division and Mr David Skirvin, Counter Terrorism Security Advisor for Lancashire Constabulary, we are not in a position to make comment with regard to the Halite Project and consultation process that you are completing.

We have discussed the matter at length and it is a matter for which Lancashire Police will need to continue to liaise with yourself and Halite if and when the project and planning application is approved, as there would no doubt be security issues and possibly other policing issues that would need to be addressed.

Thank you for making further contact and if there is anything further I can do, please do not hesitate to contact me.

Regards,

Danielle

Sgt 6336 Danielle Freaney
CBM Sgt Garstang, Over Wyre & Poulton.
Garstang Police Station, Moss Lane, Garstang, PR3 1HB
PDA mobile
Office int
external 01995

-----Original Message-----
From: george stanley <brian-stanley@sbcglobal.net>
Sent: 18 July 2011 13:17
To: Freaney, Danielle
Subject: Halite
Sgt Freaney

As we are trying to close out our consultation process I was wondering if you had any comments on the Halite project.
It may be at this stage you do not but would want to comment if and when the project is approved and this is fine with us.

Thanks
Brian

******************************************************************************
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******************************************************************************
From: "SHQ - Robinson, Frank" <shq_robinson@inferno.net>
Date: 20 June 2011 16:33:17 GMT+01:00
To: "brian.stanley@halite.net" <brian.stanley@halite.net>
Subject: LFRS Consultation - Site access

Good afternoon Brian,

Thank you for your consultation letter, dated the 4th of April 2011, which is in relation to the proposed application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire.

At this stage in the consultation process Lancashire Fire and Rescue Service will not offer any comment or opinion in relation to these proposals, however I can advise that should we reach the formal planning stage then of course we would respond formally in respect of access and water supplies.

Should you wish to discuss further then please do not hesitate to contact myself (details below).

Best Wishes
Frank
Frank Robinson
LFRS [SHQ] Garstang Rd | Fulwood | Lancashire | PR2 3LH | Fax: 01772 866905
- Work: 01772 (Internal)
- Mobile:
- Email:

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GET OUT - STAY OUT - CALL THE FIRE SERVICE OUT

!!!!!!!!!!!!!
Dear Mr Keith Budinger

In response to the attached document, LCFT do not have any comments to make.

Sent on behalf of Cliff Howell

Kind Regards

Amit Chohan
PA to Associate Director of Estates & Facilities Estates & Facilities Lancashire Care NHS Foundation Trust

T: 01772
F: 01772
E:
W: www.lancashirecare.nhs.uk
P: Estates & Facilities | Guild Park | Goosnargh | Whittingham | Preston | PR3 2JH

-----Original Message-----
From: copierestates@lancashirecare.nhs.uk [mailto:copierestates@lancashirecare.nhs.uk]
Sent: 15 July 2011 16:02
To: Chohan Amit (LCFT)
Subject:

This E-mail was sent from "RNP9DDAEC" (CS555).

Scan Date: 15.07.2011 17:01:29 (+0200)
Queries to: copierestates@lancashirecare.nhs.uk

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2011071517...pdf (201 KB)
From: "Marsh, Kristian"
Date: June 30, 2011 4:01:28 PM GMT+01:00
To: "bruce.gibson@halite.net" <bruce.gibson@halite.net>
Subject: HALITE Pipeline - A585 Trunk Road Crossing & Site compound access

Hi Bruce,

I refer to our earlier conversation.

With respect to the actual pipeline crossing of the A585 trunk road we believe that the best approach to dealing with this issue would be via a license under Section 50 of the New Roads and Street Works Act 1991 as opposed to any wayleave or easement. This license effectively gives you similar rights as a Statutory Undertaker where it comes to laying and maintaining your apparatus that crosses the A585 trunk road. Indeed, the license applies to all land within the highway boundaries, not just the metalled surfaces of the carriageway or footway.

I'm just awaiting copies of the guidance and procedures to follow with respect to this type of license from my colleagues in Birmingham. I shall therefore, forward these on to you when they arrive. I envisage that this will be early next week.

The construction of the pipeline must be undertaken via the use of trenchless methods. Which I understand is your proposal anyway. I have therefore attached for your information a copy of the relevant advice that deals with such crossings, HA 120/08, from the Design Manual for Roads and Bridges (DMRB). This advice sets out the procedures that shall be followed prior to any works taking place. It also refers you to the requirement to undertake Geotechnical Certification for your proposed works, in accordance with the requirements set out in HD22, also from DMRB. A copy of this document is also attached.

The above two documents are current at the time of this email. However, the link below should take you to the website where controlled up to date copies of the documents can be freely downloaded.

http://www.dft.gov.uk/ha/standards/dmrb/vol4/section1.htm

Indeed, I would suggest that access to the documents be obtained using the above link to ensure the most up to date information is used.

For your information the Geotechnical Advisor who should be consulted here at the Highways Agency for the Geotechnical Certification issues is Richard Shires. Richard's email address is and his telephone number is

Turning to the issue of access. Please do feel free to let me have the details of your proposals together with any assessments that have been undertaken. I should also be the first point of contact should your consultants wish to discuss any issues prior to undertaking detailed assessment work.

I trust that this email adequately sets out our position with respect to your proposals at this time. However, should you wish to discuss this issue further please feel free to get in touch with me directly.
Kristian Marsh, Assistant Asset Manager
Highways Agency I
Tel: +44 (0) 161 | Fax: + 44 (0) 16
Web: http://www.highways.gov.uk
GTN: 4315 5786

Safe roads, Reliable journeys, Informed travellers
Highways Agency, an Executive Agency of the Department for Transport.

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ha12008[1].pdf (397 KB)
ha2208[1].pdf (480 KB)
SUMMARY

This Advice Note provides guidance on the use of trenchless installation techniques for small diameter service tunnels and ducts beneath motorways and trunk roads. It addresses the assessment, review and risk management of such installations.

INSTRUCTIONS FOR USE

1. This document supersedes HA 120/07.
4. Remove HA 120/07 from Volume 4, Section 1, Part 8.
5. Insert HA 120/08 into Volume 4, Section 1, Part 8.
6. Archive this sheet as appropriate.

Note: A quarterly index with a full set of Volume Contents Pages is available separately from The Stationery Office Ltd.
Guidance on the Trenchless Installation of Services Beneath Motorways and Trunk Roads

Summary: This Advice Note provides guidance on the use of trenchless installation techniques for small diameter service tunnels and ducts beneath motorways and trunk roads. It addresses the assessment, review and risk management of such installations.
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**REGISTRATION OF AMENDMENTS**

August 2008
PART 8

HA 120/08

GUIDANCE ON THE TRENCHLESS INSTALLATION OF SERVICES BENEATH MOTORWAYS AND TRUNK ROADS

Contents

Chapter

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3. Managing the Risks Associated with Trenchless Methods
5. Identification and Location of Existing Underground Plant and Facilities
6. Method Statements and Emergency Procedures
7. Managing Geotechnical Risk
8. Monitoring and Records to be Kept During Construction
9. Post Construction Records
10. Health and Safety Aspects of Trenchless Crossings
11. References
12. Enquiries

Appendix A Definitions
1. INTRODUCTION

General

1.1 This Advice Note provides guidance on the assessment, review and risk management of the trenchless installation of small diameter service tunnels and ducts beneath motorways and trunk roads.

1.2 The use of trenchless technology is increasing due to improved techniques and the majority of utility companies now encourage the use of trenchless methods. Although historically only used for motorway crossings their use is currently becoming more common on other trunk road crossings.

1.3 Where an installation needs to cross the width of the carriageway, trenchless methods offer particular advantages over traditional techniques of open trench excavation. These include minimising disruption to the operation of the network and reduction of the requirement for traffic management.

1.4 This Advice Note is issued for the guidance of personnel responsible for the assessment and co-ordination of trenchless construction proposals. It looks at procedures to minimise geotechnical and operational risk to the network. Particular attention is given to the information to be provided by the Installer.

Scope

1.5 It principally covers projects procured by a Statutory Undertaker or other third party, although may also be applied where the Overseeing Organisation is procuring the project.

1.6 The use of trenchless technology is also covered in SD 14 (MCHW 5.8) but this only relates to schemes procured by the Overseeing Organisation.

1.7 This Advice Note covers the installation of new pipes with internal diameters up to and including 2,000 mm. Pipes and conduits in excess of 2,000 mm internal diameter require technical approval, the procedure for which is set out in BD 2/05 (DMRB 1.1).

1.8 The replacement of existing pipes is specifically omitted.

1.9 The guidance is applicable to all Trunk Roads and may also be considered good practice on other trenchless technology projects.

Definitions and Abbreviations

1.10 Definitions relating to this advice note are included in Appendix A.
2. TRENCHLESS TECHNOLOGY METHODS

General

2.1 Trenchless technology covers a range of techniques for constructing crossings beneath motorways and trunk roads without excavation of the carriageway. The methods used must be suitable for creating a stable bore of the required diameter inside which a utility service is placed.

2.2 This advice note aims to provide general guidance on the use and limitations of the various trenchless methods and systems. Since these are constantly improving and developing, it is recommended that reference be made to the United Kingdom Society for Trenchless Technology (UK STT) website www.ukstt.org.uk where further guidance and information is freely available.

Pipe Jacking and Microtunnelling

2.3 Pipe jacking is a method by which pipes or sleeves are installed by being pushed through the ground behind a small, steerable, remotely controlled, tunnel boring or ‘micro tunnel’ machine. This technique is called microtunnelling and pipes and sleeves can be installed to very strict tolerances in line and level. This makes them not just suitable for gravity mains, but also minimises any risk from lack of alignment control where close tolerances are needed and expected, such as under trunk roads and motorways.

2.4 Microtunnelling machines generally start in the UK at 600 mm internal diameter although smaller sizes down to 300 mm internal diameter can be obtained from overseas suppliers. The maximum size of what is generally regarded as a microtunnelling machine is approximately 1,500 mm internal diameter. Above this size, tunnelling machines are regarded as Tunnel Boring Machines (TBMs).

2.5 Concrete jacking pipes are supplied in sizes up to 2.55 m internal diameter. Whilst concrete jacking pipes can be supplied in smaller sizes, clay, steel and fibre-reinforced pipes are more often used in these applications. Polymer pipes are becoming increasingly popular for their strength and corrosion resistance properties.

2.6 Minimum diameters are also controlled by safety considerations. BS 6164 ‘Code of practice for safety in tunnelling in the construction industry’ section 7.14.1, states that for small tunnels, the internal size for man-entry should not be less than 1.2 m high by 0.9 m wide. This limits the size of circular man-entry tunnels to 1.2 m internal diameter. Whilst it is recognised that the excavating space at the front of the tunnel may be slightly larger than the internal diameter of the finished tunnel it is generally accepted that the minimum size refers to the whole tunnel consistent with access and egress in emergency situations.

2.7 The use of hand-excavation open pipe-jacking shields is now unacceptable as a trenchless crossing method. This has arisen since the introduction of the Control of Vibration at Work Regulations 2005 (CoVAWRs) which aims to manage the risk to operatives of hand-arm Vibration Syndrome (HAVS) or the more commonly known Vibration White Finger (VWF). In Northern Ireland refer to The Control of Vibration at Work Regulations (Northern Ireland) 2005.

2.8 Commonly used hand controlled equipment used in excavating tunnels have high vibration levels and can only be used for a matter of a few minutes before the operative reaches the maximum daily vibration level of exposure. Consequently, hand excavation using vibrating tools should be reduced and managed or preferably eliminated as a working practice.

2.9 Most micro-tunnels are straight but specialist surveying equipment and short length pipes can be provided to allow some curved tunnels to be excavated and lined.

2.10 There are two types of micro-tunnelling machine, the open-faced auger and the closed-face slurry machine. The open-faced or ‘Decon’ machine uses a front cutting disc, which is driven by a continuous flight auger string from the shaft bottom. As the cutting disc rotates, the cut material is removed along the tunnel by the auger to the shaft bottom for disposal. The ground conditions have to be such that the material can be transported effectively by the screw at a steady rate. Water logged ground unless pre-treated can inundate the face and flood the screw, with consequential ground loss causing major surface settlements. Due to the length of the driving auger the maximum length of this type of micro tunnel is about 100 m but can be much less in very stiff clay with cobbles where the torque on the auger can become excessive.
2.11 The closed-face slurry machine has a sealed bulkhead in the head of the machine through which slurry is pumped at sufficient pressure to stabilise any loose ground and to balance any water pressure. The cutter head is situated in front of the bulkhead and is driven by hydraulic motors in the head. As the ground is cut, the spoil mixes with the slurry and an extraction pump removes the spoil and slurry mixture from behind the bulkhead. It is then pumped down the tunnel to the shaft and then to the surface for separation. Once at the separation plant and separated the spoil can be disposed of to tip and the slurry is returned to the system for reuse. This slurry type system can be used to operate in most ground conditions even rock. The length of the tunnel drives for this type of system depends on ground conditions and the size of the tunnel.

2.12 Drive length is also dependent of the use of intermediate jacking stations. In small tunnels (<900 mm), where stations cannot typically be installed for logistical reasons, except very close to the head of the tunnel, drive lengths characteristically extend to over 120 m and possibly up to 150 m.

2.13 Larger slurry micro-tunnels up to 1,500 mm diameter can be equipped with intermediate jacking stations along the tunnel at regular intervals which can be used to extend the overall length to over 250 m. There is a limit to how many ‘interjacks’ can be used from a logical perspective and generally speaking three is normally accepted as the maximum number.

2.14 Face access is a further consideration in determining the overall possible drive length. Face access is feasible in micro-tunnels above 1,500 mm diameter to facilitate maintenance when back-loading cutters may be changed. On smaller micro-tunnels, worn teeth on the cutter heads cannot be replaced during production and therefore need to be durable enough for the full length of the drive. If ground conditions are particularly bad, access to the face may be assisted by use of compressed air in the tunnel to reduce water flows in the face once the bulkhead is opened.

2.15 Access shaft diameters depend upon the diameter of the tunnel to be driven, the length of the pipes to be used and the ground conditions.

2.16 Shafts can be as small as 2.5 m diameter when using a small diameter micro-tunnelling machine, half-length pipes and where ground conditions are good. Forward headings in front of the machine can be excavated to allow for more space for both machine, pipes and jacking wall construction.

2.17 In poor ground, shafts may need to be larger and 5 m diameter shafts are not uncommon. This size allows for a stronger thicker jacking wall and a sealing bulkhead at the face of the tunnelling machine to prevent loss of ground when the micro-tunnel leaves the shaft. Ground loss may be prevented using ground treatment at the back of the shaft to help resist the jacking loads and also at the exit point of the shield from the shaft.

2.18 Excavation methods for shafts also require pre-planning, particularly in respect of the requirements of CoVAWRs. In small diameter shafts the use of a grab from ground level to excavate the ground will be required in order to minimise the need for hand excavation. Larger diameter shafts, in excess of 4.5 m, may be excavated by grab or be large enough to accommodate a mini-digger, skips and operatives.

Guided Drilling and Directional Drilling

2.19 Guided drilling and directional drilling are techniques in which a steerable boring head is pushed through the ground while being rotated. When the pilot bore is completed it is enlarged to the required diameter by pulling a reamer back towards the drilling machine. When the hole has been opened to the required size the product pipe, duct or cable is pulled into place. Normal practice is for the bore to be supported by a drilling fluid during the works. The fluid also assists in cutting the soil and in removing cuttings from the bore.

2.20 The product pipe or duct pulled into place is normally plastic. Polyethylene (PE) is the most widely used pipe material with either PE or polyvinyl chloride (PVC) being used for ducts. There are several different types and pressure ratings of each material available; selection depends on location and use of the finished pipeline. Any joints in the pipes must be capable of resisting the tension placed on them during installation. This is why automatic butt fusion welded PE is preferred by many Horizontal Directional Drilling (HDD) installers.

2.21 Guided drilling can be used for crossings with diameters up to 600 mm and lengths up to 200 m.

2.22 Horizontal directional drilling can be used for crossings up to 1,200 mm in diameter and up to 1,800 m long, given good ground conditions.

2.23 Both methods are ideal for pressure pipe or cable installation where a reasonable degree of accuracy is required. Both methods can be used to install pipes and
cables on a curved path. Guided drilling can be used where an irregular installation path is required.

2.24 Both methods can be used successfully in a wide range of soils including clays, silts, sands, mudstones and soft rocks. Difficulties may be encountered in loose gravel and cobbles, where creating a stable bore may not be possible. In glacial till, where boulders may cause the drill to deviate, maintaining the alignment can be difficult.

Auger Boring

2.25 Auger boring is a horizontal rotary earth boring process in which a cutter head connected to continuous flight augers is jacked through the ground, usually inside a steel casing. Although it is possible to auger without a casing for small diameters or short bores in cohesive materials this would not be recommended under a road. In suitable ground conditions and properly executed auger boring can be a quick and economic technique.

2.26 The most common application for auger boring is for pressure pipelines that are placed inside the casing. The linings can be metallic, PE or PVC. The advancement of these systems has resulted in guided auger boring. This allows pipes to be installed accurately to line and level and is widely used for installation of gravity sewers where a clay product pipe can be directly installed.

2.27 Crossings up to 80 m in length and diameters up to 1,200 mm can be executed using auger boring.

2.28 Entry and exit pits are required. The entry (working) pit may be very long, as it needs to accommodate the auger sections and casing as well as the drive unit. Newer systems designed for accuracy, now utilise small pits where diameters of 2 m are common. This allows the operation to be undertaken in restricted working areas.

2.29 The technique can be split into two types of system. One system that is essentially unsteered so only a straight drive can be undertaken. The capability to correct deviations is limited and the accuracy is dependent on accurate alignment of the machine prior to starting to bore. Typical alignment accuracy is 1% of the driven length. The other type is the guided system, which is accurately steered through the ground on a straight drive.

2.30 Auger boring may be used in a wide range of soils. Even water bearing ground can now be drilled by the use of systems such as water augers that restrict the ingress of materials.

2.31 However non-cohesive soils can still be problematic as excess material can be pulled into the bore causing surface settlement. Difficulties may also be encountered in glacial tills where boulders may cause the drill path to deviate in an uncontrolled manner. Soft or hard strata that intersect the alignment at shallow angles can also cause the auger to deviate off-line.

Impact Moling and Rod Pushing

2.32 Impact moling is a technique in which a percussive tool, usually driven by compressed air, is driven through the soil, advancing with a hammer action. The soil in front of the mole is displaced. The mole is connected to the launch pit by a pneumatic hose. Moles may be fitted with radio sondes so their position can be tracked from the surface.

2.33 Rod pushing is a similar technique but advancement is by pushing a head on rigid rods from the launch pit with soil being displaced by the driving head.

2.34 The power of the impact moling unit may be used to pull the product pipe, cable or duct into place at the same time as the impact mole advances. With the rod pusher the product pipe, cable or duct is installed by pullback from the target pit.

2.35 Impact moling is generally used for straight crossings although steerable equipment is available. Rod pushing has a limited steering capability but is most often used for straight drives. Both methods require launch and target pits.

2.36 Crossings up to 25 m can be executed with these methods, possibly a little longer with rod pushing in good soil conditions. Diameters range from 45 mm to 200 mm. Because of soil compaction and risk of surface movement (heave) typical minimum cover requirements are 1 metre for every 100 mm of mole diameter.

2.37 Within their limitations, these methods can be quick and cost-effective for short crossings to install small pipes, cables and ducts. Both methods can be used in soils that can be compressed or displaced. Obstacles such as boulders and cobbles can cause deviation of the bore that cannot be corrected.
Pipe Ramming

2.38 Pipe ramming is a technique in which a steel casing, usually open-ended, with a cutter end is driven through the soil by a hammer located in the launch pit. The casing may be in a single section or welded from shorter sections during installation. Soil is removed from inside the casing after driving. The installed casing may itself become part of a product pipe or, more commonly, a product pipe, cable or duct is installed inside it.

2.39 Crossings up to 70 m can be achieved and pipes with diameters up to 2,000 mm have been installed in suitable ground conditions.

2.40 Pipe ramming is unsteerable, so the method is used for straight crossings only; launch and reception pits are required. Directional accuracy is dependent on the accurate alignment of the guide rails on which the casing and hammer are positioned in the launch pit.

2.41 The technique may be used in a wide range of soils above or below the ground water table. The rammed casing is stiff and not easily deviated by cobbles or boulders. However, massive obstructions cannot be penetrated. In very soft soils pipe ramming is less susceptible to deviation than impact moling.
3. MANAGING THE RISKS ASSOCIATED WITH TRENCHLESS METHODS

General

3.1 No project is free of risk, and those employing trenchless methods are no exception. The Overseeing Organisation, who is the risk owner, has a responsibility to develop systems to manage this risk for the following reasons:

- enable delivery of business objectives;
- enable control and stewardship of public assets;
- maintain optimum operation of the road network;
- the need to comply with legal and regulatory requirements.

3.2 To be effective, the risk management should be integrated into the business processes of the Overseeing Organisation. A simple approach to risk management involves three main stages:

a) risk recognition and identification – determine what could go wrong;

b) risk analysis and evaluation – understand how the risks occur and quantify their possible effects; and

c) response to risk – determining resources, prioritising, allocating ownership and responsibility.

Risk Recognition and Identification

Risk of Heave or Settlement

3.3 The principle risk to the highway when a service is installed beneath it using trenchless methods is of either settlement or heave. These ground movements can be avoided by using the most appropriate trenchless installation method, good quality equipment and experienced personnel.

3.4 A good knowledge of the soils to be encountered and appropriate engineering interpretation will further reduce the risks of ground movement. Each of the trenchless techniques applicable to service installation has risks associated with the work.

3.5 The risk and amount of settlement or heave depends upon the depth at which the crossing is made and also the size of the tunnel or sleeve to be provided. Settlement calculations (O’Reilly and New, 1991) should be made taking into account ground conditions, depth to axis of the sleeve or tunnel from the road surface and the size of the sleeve or tunnel.

3.6 Calculations for heave can be made in a similar manner but heave is generally only temporary and is usually the result of excessive face pressure caused by high jacking forces. Operators should be fully experienced and competent in the use of their equipment and should be aware of the ground conditions along the route.

Method Specific Risks

3.7 Each trenchless technique presents its own particular suite of risks and these are detailed against each method. A summary table showing the level of risk associated with each method is given in Table 3.1.

Microtunnelling

3.8 The principal risks associated with microtunnelling are:

- soil movement – settlement and, to a lesser extent, heave;
- incorrect system operation during installation. This may cause direct damage to the road pavement and affects its traffic-carrying capacity; this can be a short or long-term risk;
- soil settlement or collapse resulting in a depression in the pavement and safety concerns for road-users.

3.9 The British Tunnelling Society and the Association of British Insurers have published ‘The Joint Code of Practice for Risk Management of Tunnel Works in the UK’ which is intended as a guide to reducing risk in tunnelling. Whilst aimed at larger tunnels many of the principles advocated in this document are applicable to microtunnelling works.
Directional Drilling

3.10 The principal risks associated with directional drilling are:

- settlement or heave. The risk increases with larger diameters (>300 mm) and is low for small diameter bores;
- soil movements resulting from installation problems;
- ‘frac-outs’ (blow outs of drilling mud) resulting in drilling mud disrupting the pavement and being a safety issue for road-users.

Auger Boring

3.11 The principal risks associated with auger boring are:

- inappropriate use in poorly graded granular soils or unstable ground conditions. This leads to the creation of voids or direct settlement;
- allowing the auger to rotate/remove soil with no forward movement. This will draw soil into the auger and cause voids/settlement above the bore;
- short-term and long-term settlement;
- damaging existing utilities;
- the unexpected exit from the ground at the road surface is possible. This is due to the fact that auger boring is unsteered but this is a low risk. This can be negated using guided auger boring.

Impact Moling

3.12 The principal risks associated with impact moling are:

- surface heave due to soil displacement or insufficient cover;
- unexpected exit from the ground at the road surface due to the mole being unsteered.

Particular Factors Bringing an Increased Level of Risk

3.13 The following factors have been identified as bringing an increased level of risk to projects where trenchless techniques are being used. These factors are listed in decreasing level of risk:

1. incorrect choice of technique;
2. inadequate site investigation;
3. inadequate skill of the operatives;
4. unforeseen ground conditions (often associated with item 2 above);
5. damage to existing utilities (often associated with items 2 and 3 above);
6. equipment breakdown;
7. inadequate temporary works.

Risk Analysis and Evaluation

3.14 In the previous stage, the typical risks associated with trenchless crossings were identified together with the factors likely to bring these risks about. The subsequent stage of ‘risk analysis’ looks at the likelihood of these risks occurring along with consequences should these risks be realised.

3.15 The consequences of not adequately managing these risks, in terms of operation of the road network, may include:

- closure of the road network;
- need to implement traffic management;
- damage to highway assets, such as communications cabling, pavement or structures;
- damage to third party assets, for example those owned by utility operators;
- compromise of safety of road users.

3.16 Similarly, the consequences of poor risk management for the geotechnical asset include:

- short-term heave or settlement beneath the pavement;
- long-term settlement beneath the pavement bringing an uneven running surface;
- settlement or slope failure of the highway embankment.
3.17 Table 3.1 assesses each of the trenchless techniques previously discussed and rates the level of risk to the network against what are considered to be the four principal risks.

**Risk Response**

3.18 Finally, in providing a risk response, it is necessary to allocate ownership of the risk and look at using risk mitigation measures to minimise the consequences and likelihood of the risk.

3.19 Ultimately the owner of all risks is the Overseeing Organisation. However, a risk owner may transfer the management of the risk to another party (with mutual agreement) to be responsible for performing or managing the actions that reduces the impact or likelihood of the risk. It is recommended that the Managing Agent (MA) or equivalent Service Provider appoint a co-ordinator to manage the risks associated with trenchless crossings conducted by a third party (the Installer).

3.20 The Overseeing Organisation needs to maintain a capacity to both manage and monitor the performance of the MA’s designated co-ordinator.

3.21 Whilst the MA is accountable for managing the risk, it will be the Installer who has the day to day responsibility for ensuring that decisions are made, procedures upheld and actions are taken to mitigate against creating any unnecessary risk to the Overseeing Organisation.

3.22 In this Advice Note the onus is placed upon the Installer to produce documentary evidence to demonstrate that they are taking all practicable measures to ensure that the risk to the Overseeing Organisation is minimised. It is recommended that the Installer provide the following documentation for submission to the Managing Agent’s co-ordinator for approval:

- proposals for demonstrating the effective identification and location of existing utilities;
- method statements demonstrating effective choice of methods, personnel and supervision;
- a risk register to summarise key risks and the methods used in their mitigation;
- emergency procedures for dealing with situations which would require traffic management or compromise the safety of road users;
- a geotechnical report to demonstrate management of geotechnical risk and to support the choice of trenchless technique;
- scope of records to be kept during construction.

3.23 Full details of the documentary requirements are given in subsequent sections of this advice note.

### Table 3.1 Risk Summary for Trenchless Installations Below Highways

<table>
<thead>
<tr>
<th>Technique</th>
<th>Principle Risk</th>
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<tbody>
<tr>
<td></td>
<td>Soil Movement Settlement</td>
</tr>
<tr>
<td>Microtunnelling</td>
<td>Minor</td>
</tr>
<tr>
<td>Pipe-Jacking</td>
<td>Minor</td>
</tr>
<tr>
<td>Guided Drilling</td>
<td>Negligible</td>
</tr>
<tr>
<td>Horizontal Directional Drilling</td>
<td>Minor</td>
</tr>
<tr>
<td>Auger boring</td>
<td>Moderate</td>
</tr>
<tr>
<td>Pipe Ramming</td>
<td>Negligible</td>
</tr>
<tr>
<td>Impact Moling/Rod Pushing</td>
<td>Negligible</td>
</tr>
<tr>
<td>Working Shafts</td>
<td>Minor</td>
</tr>
</tbody>
</table>
4. RESPONSIBILITIES UNDER THE NEW ROADS AND STREETWORKS ACT AND TRAFFIC MANAGEMENT ACT

General


4.2 In Scotland, where a reference to the NRSWA refers to a non-Scottish section, e.g. Section 59, refer to the Scottish equivalent within NRSWA as amended by Transport (Scotland) Act 2005.

4.3 There are two sections of NRSWA that do contain specific provisions for Highway Works (Works for Road Purposes). These are Section 53, requiring highway authorities (HAs) to register all works and Section 59, requiring highway authorities to co-ordinate works, and protect the structure of the street and the integrity of any apparatus in it.

4.4 The NRSWA Act primarily applies to utility works whether they are carried out in pursuance of a statutory right or of a Section 50 streetworks license.

4.5 The term ‘street’, as defined in NRSWA Section 48, means the whole or part of any highway, road, lane, footway, alley or passage. It, therefore, includes adjacent footways and cycle tracks.

Notification

4.6 Under NRSWA Section 54, undertakers must notify the highway authority in advance before carrying out new/replacement or maintenance works, under the terms of NRSWA (Code of Practice for the Coordination of Streetworks and Works for Road Purposes and Related Matters). The exception is urgent repair works and emergencies that may be notified after work has started.

4.7 Notices by undertakers are sent via an electronic process known as Electronic Transfer of Notices (EToN). This searches information on all streets in England (held in the National Street Gazetteer (NSG)) to establish the correct street authority and any restrictions placed on the street.

4.8 Under their statutory powers granted by Acts of Parliament undertakers can install and maintain their apparatus in or under a publicly maintainable highway. An NRSWA Section 50 license gives a non-statutory undertaker similar rights to place and maintain apparatus in the street. In both cases NRSWA controls how those powers may be used.

4.9 Under NRSWA Section 61, any highway or proposed highway that is a ‘special road’, in accordance with Section 16 of the Highways Act, is designated as a ‘protected street’. Motorways have ‘protected street’ designation. Other streets or parts of streets that serve a specific strategic traffic need may also be designated as a ‘protected street’.

4.10 Undertakers need to obtain the written consent from the HA to place or maintain apparatus in protected streets. Currently undesignated trunk roads have no exemption from utilities statutory powers to install apparatus, but can be protected from utility works following new resurfacing/reconstruction, with an NRSWA Section 58 notice served by the Street Authority (Restrictions Following Substantial Road works). Currently this applies only to planned utility works for a period of 12 months but is likely to be considerably extended under the new TMA.

4.11 In addition there are advance NRSWA noticing requirements. Under NRSWA Sections 63 and 64, undertakers are also required to give longer periods of notice and obtain agreement of construction plans when the street has been designated as either a ‘street with special engineering difficulty’ or as ‘traffic sensitive’.

4.12 For example, some bridges, shallow culverts/ tunnels, retaining walls and embankments, have this designation. However, unless these designations are entered onto the NSG, they are not considered valid and undertakers will consequently be unaware of them.

4.13 The utility company must notify the Overseeing Organisation (in accordance with the NRSWA Codes of Practice, new TMA or Highways Agency’s road space...
bookings systems where works will involve excavation or affect the flow of traffic. All contact is directed to the Managing Agent (MA).

4.14 Although consents on Motorways and Trunk Roads designated as Protected Streets concentrate on legalities of liability, insurance, road use and general public safety, technical details should be requested in order to review the engineering content.

4.15 The utility company must allow enough time to satisfy any concerns from the Overseeing Organisation and provide details of the proposed trenchless technique in accordance with this advice note, with any additional details that may be requested.

4.16 Where Utilities cannot be persuaded to undertake trenchless methods the Agency can (a) give formal directions as to the time and day(s) on which the works must be executed (Section 56) (b) As Traffic authority direct that traffic control in excess of or different to the standards in the NRSWA Code of Practice is required (c) ensure that the requirements in the Reinstatement Code of Practice are strictly adhered to with regards to the new surface which may in some instances negate the use of hand laid materials.

4.17 If utility work is at a junction that spans both trunk road and local authority road then the utility must notify both authorities, with accurate times and measurements appropriate for each individual section.

4.18 The notification period for commencing works may range from one day to one calendar month depending on the category of the works and the traffic sensitive situation. Notification time is likely to be increased under the TMA.

4.19 It is the Utility companies’ and their appointed contractors’ responsibility to satisfy NRSWA and other legislation to provide a safe design and a properly controlled and executed site operation.

4.20 The MA should inform the Overseeing Organisation of any notification received for works to be carried out on trunk road crossings.

Future Developments in Streetworks

4.21 At the time of production of this Advice Note, the current legislation is going through a period of major change and most of the secondary legislation has yet to be published.
5. IDENTIFICATION AND LOCATION OF EXISTING UNDERGROUND PLANT AND FACILITIES

General

5.1 Site specific proposals for undertaking the works safely and without damaging any existing underground plant and facilities should be submitted to the Managing Agent’s (MA’s) co-ordinator for approval. Timescales should be agreed with the MA; notice periods should also comply with the relevant legislation. It is important that the Installer allows sufficient time within the construction programme for this to take place.

5.2 No documentation relating to any working practice or procedure contained within it shall be amended without first seeking approval from the MA in writing.

Types of Utility

5.3 In locations where crossings may be required beneath motorways and trunk roads the following services and facilities may be found:

- foul sewers;
- surface water/storm drains;
- combined sewers;
- water mains;
- gas mains;
- irrigation pipes;
- district heating pipes;
- industrial pipelines;
- oil transmission pipelines;
- electricity cables;
- telephone cables;
- cable TV cables;
- street lighting cables;
- traffic light cables;
- highway information cables;
- wildlife tunnels;
- service tunnels.

5.4 Identification and location of all existing underground infrastructure is necessary prior to commencing any excavation or drilling activity. It should include abandoned and disused services as well as those that are active.

5.5 In all cases the Installer should identify the owners of underground infrastructure likely to be affected by the proposed crossing. All applicable records should be collected and reviewed in detail; drawings developed showing their location and proposals submitted for avoiding damage.

5.6 The level of appropriate investigation for each site should be agreed with the MA and the Installer based on the perceived risk.

5.7 The relevant utility company or owner should be notified before excavating trial holes in order to verify the position of selected services.
6. METHOD STATEMENT AND EMERGENCY PROCEDURES

General

6.1 A site specific Method Statement and Emergency Procedures should be submitted to the Managing Agent’s (MA’s) co-ordinator for approval. Timescales should be agreed with the MA; notice periods should also comply with the relevant legislation. It is important that the Installer allows sufficient time within the construction programme for this to take place.

6.2 No documentation relating to any working practice or procedure contained within it should be amended without first seeking approval from the MA in writing.

Method Statement

6.3 The Method Statement should outline the procedures involved in the trenchless technology technique and methods of minimising risk. Reference should be made to SD 14 Clause NG 8004 (MCHW 5.8).

6.4 Where the contract requires work on contaminated land, the Installer should contact the relevant authorities before submitting the Method Statement and agree working practices and procedures.

6.5 Personnel should be Confined Space Trained where appropriate. A number of the techniques involve the creation of confined spaces, which include shafts, where gases can collect and pose a hazard to safety unless managed correctly.

6.6 Tunnels of 900 mm diameter and below are accepted as non-man entry and, therefore, deemed to be ‘restricted areas’. Emergency repairs may have to be effected in these small tunnels but strict entry procedures must be in place to manage this special situation.

Emergency Procedures

6.7 Emergency procedures should be outlined including the procedures involved in ensuring that the site representatives are sufficiently experienced with the construction design requirements to enable solutions to unexpected or emergency situations to be agreed without delay.

6.8 If excessive heave or settlement occurs emergency situations may arise which could potentially cause an obstruction to the highway or make the road unsafe to the road user. The method statement should outline emergency procedures that are to be taken with details of key members of staff to be contacted.
7. MANAGING GEOTECHNICAL RISK

Managing Geotechnical Risk

7.1 The requirements for Managing Geotechnical Risk are set out in HD 22 (DMRB 4.1.2). The Standard was introduced to ensure that geotechnical risk was properly managed by providing a consistent approach for geotechnical design. Ground conditions are always uncertain and a risk to any project and the risks from these factors should be managed in a positive manner.

7.2 The focal point for the management of geotechnical risk is the Geotechnical Advisor of the Overseeing Organisation. The responsibility for managing the geotechnical risk associated with a trenchless crossing may be delegated to the Managing Agent’s Geotechnical Liaison Engineer (MAGLE). This should take place with the prior approval of the Overseeing Organisation and the agreement of the MA. In turn the MAGLE will need to liaise with the streetworks co-ordinator to ensure that proposals submitted by the Installer are appropriate and can subsequently be given approval via Geotechnical Certification.

7.3 It is recommended that the Installer appoints a Geotechnical Specialist as a focal point for all geotechnical aspects of the project. Further information is given in Site Investigation in Construction Series Documents (1993).

7.4 Managing geotechnical risk is also covered by ‘The Joint Code of Practice for Risk Management of Tunnel Works in the UK’ published by The British Tunnelling Society and the Association of British Insurers.

Geotechnical Report

7.5 In compiling the Ground Investigation Report, the Installer’s Geotechnical Specialist will need to consult sources of existing information, such as geological maps, memoirs and previously completed ground investigations relevant to the site. During this time, temporary ‘view-only’ access to the Highways Agency Geotechnical Data Management System (HA GMDS) will be granted. The Reports Database of this system contains an inventory and downloadable copies of ground investigation reports previously undertaken on behalf of the Highways Agency.

7.6 The Geotechnical Design Report should be submitted by the Installer to the MAGLE for approval. Timescales for submission should be agreed with the MA; notice periods should also comply with the relevant legislation. It is important that the Installer allows sufficient time within the construction programme for this to take place.

7.7 The general format for the Geotechnical Design Report is given in Appendix E of HD 22. It need only consist of sections that are relevant to the project. Since the specified Geotechnical Design Criteria in the model format apply to highway construction, it is recommended that the following sections be substituted where applicable:

(i) Open Excavations

The Geotechnical Design Report should include a discussion of the following points where relevant:

- location and types of materials anticipated;
- any groundwater considerations;
- short-term and long-term stability of the open excavation and support methodology;
- spoil handling and disposal.

(ii) Trenchless Methods

The Geotechnical Design Report should include a discussion of the following points where relevant:

- the methodology proposed in relation to ground conditions;
- any restrictions on the proposed excavation method;
- spoil handling and disposal;
- ground water control (including pumping or well pointing) and ground stability issues;
- pipe loadings that have been considered.
(iii) **Instrumentation and Monitoring**

The Geotechnical Design Report should include a discussion of the following points where relevant:

- predicted and critical settlement or heave;
- full details and purpose of all monitoring equipment, installation requirements, restrictions and frequency of reading;
- clearance assumptions to third party property (i.e. existing underground services) and carriageways.

7.8 Simple methods to predict ground displacements caused by trenchless pipelaying operations can be found in Rogers and Chapman (1998) and Chapman (1999).

**Approval of the Geotechnical Design Report**

7.9 It is recommended that review of the Report should be undertaken by the MAGLE. The Geotechnical Certificate and accompanying Geotechnical Design Report should be sent to the Overseeing Organisation’s Geotechnical Advisor for formal approval.
8. MONITORING AND RECORDS TO BE KEPT DURING CONSTRUCTION

Records

8.1 Construction records should be kept to support the procedures outlined in Section 6.

8.2 The records, and their format, to be kept by the Installer and supplied to the Managing Agent’s (MA’s) co-ordinator should be established and agreed together with the timescale for submission prior to any construction works. The type of records will vary for each method and project (see also SD 14 (MCHW 5.8)), but the details listed in Table 8.1 for each installation method provide guidance on the information to be supplied.

Supervision by a Geotechnical Specialist

8.3 It is recommended that a Geotechnical Specialist inspect the excavations to ensure that the ground conditions reported in the Geotechnical Design Report are consistent with those encountered during site works. Boreholes and trial pits may not reveal the true extent of cobbles or boulders at depth. These may only be seen once the excavation of the shafts or pits has commenced. It should be possible at this stage to review the method and if necessary change it to a more appropriate technique.

Heave and Settlement

8.4 Prior to any trenchless technology works, the Installer may be required to make measurements of existing ground levels.

8.5 The Installer should monitor the levels during construction works and record the values as agreed. Any variation from predicted values should immediately be reported to the MA.

Monitoring Adjacent Structures and Services

8.6 Acceptable levels of damage (if any), movement and levels for noise and vibration at nearby structures should be agreed prior to any construction works.

8.7 All survey information, records, and assessments, should be included in the project Feedback Report.
### Table 8.1  Records to be Kept (As indicated by an asterisk)

<table>
<thead>
<tr>
<th></th>
<th>Micro Tunnelling¹</th>
<th>Pipe Jacking</th>
<th>Directional Drilling</th>
<th>Thrust Boring</th>
<th>Auger Boring</th>
<th>Pipe Ramming</th>
<th>Impact Moling</th>
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</thead>
<tbody>
<tr>
<td>Contract</td>
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<td>Pipe material</td>
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Note: ¹ All microtunnelling machines must be equipped with an electronic ‘Data-Logger’, which should record fully every function of the machine and the back-up equipment, such as the jacking rams and any interjack station installed. These must be available at all times.
9. POST CONSTRUCTION RECORDS

General

9.1 A Feedback Report should be prepared by the Installer and submitted to the Managing Agent’s (MA’s) co-ordinator within one month of completion of the works. A copy should be supplied to the Overseeing Organisation and will form part of the asset inventory and Health and Safety File.

Feedback Report

9.2 The contents of the Feedback Report should include the following items:

- as-built drawings, including details of the installed conduit, temporary works, permanent structures and back filling;
- post construction structures and level survey;
- construction photographs;
- details of any problems encountered during the works and procedures used to overcome or correct the problems.
10. HEALTH AND SAFETY ASPECTS OF TRENCHLESS CROSSINGS

General

10.1 All trenchless crossings beneath highways should be undertaken with due regard for the health and safety of all site personnel, visitors and road users. Health and safety legislation must be observed, including those requirements concerned with the duties of employers towards both their employees and other persons, including members of the public whose safety may be affected by their works.

10.2 All work undertaken should comply with the Health and Safety at Work etc. Act 1974. Work should also comply with all other relevant regulations such as the Construction (Health, Safety and Welfare) Regulations and the Control of Substances Hazardous to Health Regulations (COSHH). In Northern Ireland refer to the Health and Safety at Work (Northern Ireland) Order 1978.

10.3 The Construction (Design and Management) Regulations 2007 place additional statutory duties upon clients, designers and contractors to ensure that health and safety are taken into account throughout all stages of a construction project. In Northern Ireland refer to The Construction (Design and Management) Regulations (Northern Ireland) 2007.

10.4 The use of hand excavation and vibrating tools is now covered by Control of Vibration at Work Regulations 2005 (CoVAWRs). Working procedures now need to be considered to minimise exposure of operatives to within acceptable vibration levels.

10.5 The British Tunnelling Society has produced ‘Guidance for the Management of HAVS in Tunnelling Works’ which is available from their web site (www.britishtunnelling.org) which will be of help in managing the HAVS risk.

Risk Assessment

10.6 A Risk Assessment is an essential aspect of the management of health and safety. A suitable risk assessment to meet the requirements of health and safety legislation should be carried out for all relevant activities.

Health and Safety Procedures

10.7 Where specific procedures or recommendations exist concerning particular methods or operations, these procedures should be followed.

Disposal of Waste Materials

10.8 Several of the methods described in this Advice Note use drilling fluids in their operation. These materials, and all excavated materials, must be disposed of in accordance with all relevant legislation and local and national requirements for environmental protection.
11. REFERENCES

   SD 14 Implementation Standard for Trenchless Installation of Highway Drainage and Service Ducts
   Specification (MCHW 5.8.2)
   Notes for Guidance (MCHW 5.8.3)
   Method of Measurement (MCHW 5.8.4)

2. Design Manual for Roads and Bridges (DMRB)
   BD 2 Technical Approval of Highway Structures. (DMRB 1.1.1)
   HD 22 Managing Geotechnical Risk. (DMRB 4.1.2)


Bibliography


12. ENQUIRIES

All technical enquiries or comments on this Advice Note should be sent in writing as appropriate to:

Division Director of Network Services –
Technical Services Division
The Highways Agency
City Tower
Manchester
M1 4BE

D DRYSDALE
Division Director of Network Services –
Technical Services Division

Director, Major Transport Infrastructure Projects
Transport Scotland
8th Floor, Buchanan House
58 Port Dundas Road
Glasgow
G4 0HF

A C McLAUGHLIN
Director, Major Transport Infrastructure Projects

Chief Highway Engineer
Transport Wales
Welsh Assembly Government
Cathays Parks
Cardiff
CF10 3NQ

M J A PARKER
Chief Highway Engineer
Transport Wales

Director of Engineering
The Department for Regional Development
Roads Service
Clarence Court
10-18 Adelaide Street
Belfast
BT2 8GB

R J M CAIRNS
Director of Engineering
APPENDIX A  DEFINITIONS

The trenchless technology terms have been reproduced with permission from the International Society for Trenchless Technology (1999).

Auger Boring: Method for forming a bore, usually from a drive pit, by means of a rotating cutting head. Spoil is removed back to the drive pit by helically wound auger flights rotating in a steel casing. The equipment may have limited steering capability. See also Guided Auger Boring.

Back Reamer: Cutting head attached to the leading end of a drill string to enlarge the pilot bore during a pull-back operation to enable the product pipe to be installed.

Bore: Void which is created to receive a pipe, conduit or cable.

Cased Bore: Bore in which a pipe, usually a steel sleeve, is inserted simultaneously with the boring operation. Usually associated with auger boring or pipe jacking.

Casing: Pipe to support a bore. Usually not a product pipe.

Cutting/Cutter Head: Tool or system of tools on a common support that excavates at the face of a bore. Usually applies to mechanical methods of excavation.

Directional Drilling: Steerable method for the installation of pipes, conduits and cables in a shallow arc using a surface launched drilling rig. In particular, the term applies to large scale crossings in which a fluid filled pilot bore is drilled without rotating the drill string, and this is then enlarged by a washover pipe and back reamer to the size required for the product pipe. The required deviation during pilot boring is provided by the positioning of a bent sub.

Drill Bit/Head: Tool which cuts the ground at the head of a drill string, usually by mechanical means.

Drilling Fluid/Mud: Mixture of water and usually bentonite or polymer continuously pumped to the cutting head or drill bit to facilitate the removal of cuttings, stabilise the bore, cool the head and lubricate the passage of the product pipe. In suitable ground conditions water alone may be used.

Drill String/Stem: The total length of drill rods/pipes, bit, swivel joint, etc. in a bore.

Drive/Entry Shaft/Pit: Excavation from which trenchless technology equipment is launched for the installation or renovation of a pipeline, conduit or cable. It may incorporate a thrust wall to spread reaction loads to the ground.

Earth Pressure Balance (EPB) Machine: Type of microtunnelling machine in which mechanical pressure is applied to the material at the face and controlled to provide the correct counter-balance to earth pressure in order to prevent heave or subsidence. The term is usually employed where the pressure originates from the main jacking station in the drive shaft or to systems in which the primary counter-balance to the earth pressures is supplied by pressurised drilling fluid or slurry.

Face Stability: Stability of the excavated face of a tunnel or pipe jack.
Grouting: Method of filling voids, usually with cementitious grout.

Guided Auger Bore: Method of auger boring in which the guidance mechanism actuator is sited in the drive shaft. The term may also be applied to those auger boring systems with rudimentary articulation of the casing near the cutting head activated by rods from the drive shaft.

Guided Boring: See Guided Drilling.

Guided Drilling: Method for the installation of pipes, conduits: and cables using a surface-launched drilling rig. A pilot bore is drilled using a rotating drill string and is then enlarged by a back reamer to the size required for the product pipe. The necessary deviation during the pilot boring is provided by a slanted face to the drill head, an asymmetric drill head, eccentric fluid jets or a combination of these, usually in conjunction with a locator.

Guide Rail: Device used to support or guide, first the shield and then the pipe within the drive shaft during a pipe jacking operation.

Heaving: Process in which the ground may be displaced causing a lifting of the ground surface.

Horizontal Directional Drilling (HDD): See Directional Drilling.

Impact Moling: Method of creating a bore using a pneumatic or hydraulic hammer within a casing, generally of torpedo shape. The term is usually associated with non-steered or limited steering devices without rigid attachment to the launch pit, relying upon the resistance of the ground for forward movement. During the operation the soil is displaced, not removed. An unsupported bore may be formed in suitable ground, or a pipe drawn in, or pushed in, behind the impact moling tool. Cables may also be drawn in.

Impact Ramming: See Pipe Ramming.

Jacking Force: Force applied to pipes in a pipe jacking operation.

Jacking Pipes: Pipes designed for use in a pipe jacking operation.

Jacking Shield: Fabricated steel cylinder from within which excavation is carried out, either manually or by mechanical means. Incorporated within the shield are facilities for controlling line and level.

Launch Pit: As for drive pit but more usually associated with launching an impact moling or similar tool.

Locator: An electronic instrument used to determine the position and strength of electromagnetic signals emitted from a transmitter sonde in the pilot head of a boring system, in an impact moling tool or from existing underground services that have been energised. Sometimes referred to as a Walkover System.

Microtunnelling: Method of steerable remote control pipe jacking to install pipes of internal diameter less than that permissible for man-entry. In North America the term is used to describe remote control continuous pipe jacking in all diameters.
Pilot Bore: First, usually steerable, pass of any boring operation that later requires backreaming or other enlargement. Most commonly applied to guided drilling, directional drilling and 2-pass microtunnelling systems.

Pipe Jacking: Method for directly installing pipes behind a shield machine by hydraulic or other jacking from a drive shaft such that the pipes form a continuous string in the ground.

Pipe Ramming: Non-steerable method of forming a bore by driving a steel casing, usually open-ended, with a percussive hammer from a drive pit. The soil may be removed by augering, jetting or compressed air. In appropriate ground conditions a closed casing may be used.

Product Pipe: Permanent pipeline for operational use.

Pull-Back: That part of a guided drilling or directional drilling operation in which the drill string is pulled back through the bore to the entry pit or surface rig, usually installing the product pipe at the same time.

Reception/Exit Shaft/Pit: Excavation into which trenchless technology equipment is driven and may be recovered during the installation or renovation of a product pipe, conduit or cable.

Rod Pushing: Method of forming a pilot bore by driving a closed pipe head with rigid attachment from a launch pit into the soil that is displaced. Limited steering and monitoring capability may be provided, usually in conjunction with a locator.

Subsidence: Process in which the ground may be displaced causing a settlement at the surface.

Target Shaft/Pit: See Reception/Exit Shaft/Pit.

Thrust Pit: See Drive Pit.

Trenchless Technology: Methods for utility and other line installation, rehabilitation, replacement, renovation, repair, inspection, location and leak detection, with minimum excavation from the ground surface.

Uncased Bore: Self-supporting bore without a lining or inserted pipe, whether temporary or permanent.

Walkover System: See Locator.
SUMMARY

This Standard sets out the procedures to be followed and certificates to be used during the process of planning and reporting of all Geotechnical Works carried out on highways under the jurisdiction of the relevant Overseeing Organisation to ensure that the Geotechnical Risk is correctly managed.

INSTRUCTIONS FOR USE

This revised Standard is to be incorporated in the Manual.

1. This document supersedes HD 22/02, which is now withdrawn.


3. Remove HD 22/02, which is superseded by HD 22/08, and archive as appropriate.

4. Insert HD 22/08 in Volume 4, Section 1, Part 2.

5. Please archive this sheet as appropriate.

Note: A quarterly index with a full set of Volume Contents Pages is available separately from The Stationery Office Ltd.
Managing Geotechnical Risk

Summary: This Standard sets out the procedures to be followed and certificates to be used during the process of planning and reporting of all Geotechnical Works carried out on highways under the jurisdiction of the relevant Overseeing Organisation to ensure that the Geotechnical Risk is correctly managed.
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VOLUME 4  GEOTECHNICS AND DRAINAGE
SECTION 1  EARTHWORKS

PART 2

HD 22/08

MANAGING GEOTECHNICAL RISK

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2. Management of Geotechnical Risk

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4. Key Stage 1 – Initial review of Project

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7. Key Stage 4 – Geotechnical Feedback

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Appendix A  Geotechnical Certificate

Appendix B  Format of Statement of Intent

Appendix C  Format of Preliminary Sources Study Report

Appendix D  Format of Ground Investigation Report

Appendix E  Format of Geotechnical Design Report

Appendix F  Format of Geotechnical Feedback Report
1. INTRODUCTION

Why Geotechnical Certification?

1.1 Geotechnical certification is used to ensure that geotechnical risk is managed throughout the lifetime of a scheme. It is applied to all schemes which involve geotechnical activities and which may pose a risk to the general public, the Overseeing Organisation and/or the Overseeing Organisations’s asset.

1.2 The purpose of this standard is to provide a clear and consistent framework to record the management of the geotechnical risk involved in a scheme. Certification is applied as a series of steps at four Key Stages of projects. It is intended that these stages are related to the key stages of decision making within the lifetime of a scheme.

1.3 Third party development may be proposed adjacent to/under or over the highway and, as such proposals will be submitted to the Highways Agency as a statutory consultee in the planning process, it is required that this standard shall be followed by the third party in order that the process is as efficient as possible. As a minimum, Key Stages 1, 2 and 3 will need to be completed. Where Overseeing Organisation’s Highway Projects are referred to in the following sections, this should be taken to apply also to third party projects.

1.4 This standard establishes the two key personnel who shall ensure that geotechnical risk is managed. These personnel are the Designer’s Geotechnical Advisor (DGA) and the Overseeing Organisation’s Geotechnical Advisor (GA). A key aspect of effectively managing geotechnical risk is the establishment of liaison between these parties at an early stage of the project.

Background

1.5 This Standard sets out the procedures to be followed and certificates to be used during the process of planning and reporting ground investigations and of the planning, design and construction of Geotechnical Works for the Overseeing Organisation’s Highway Projects in England, Wales and Northern Ireland. The purpose of certification is to ensure that the geotechnical risks to such projects are correctly identified, reported and managed. Whilst the principles behind these procedures are to be adopted for use in Scotland, separate certification procedures as set out in SH4 (Ref 17) are currently being retained.

1.6 The Standard was introduced to ensure that the geotechnical risk was properly managed by providing a consistency of approach for geotechnical design and certification for all highway projects. This revision to the Standard reflects changing procurement methods for both design and construction, together with an increase in maintenance work and the need to encourage innovation.

No construction project is risk free. Risk can be managed, minimised, shared, transferred or accepted. It cannot be ignored.

Constructing the Team, Latham 1994

1.7 An essential part of ensuring value for a project is the identification and management of project risks. All parties involved in a project have a role in ensuring that project risks are identified, overcome or managed. Ground conditions are often uncertain and a risk to any project. The risks from these ground conditions must be managed in a pro-active manner (Ref 1). The main risk that the 1992 standard set out to overcome was that of cost overrun, however, ground related risks affect and influence many facets of construction. The revised standard issued in 2002 introduced simplified and streamlined processes to ensure that ground related risks are correctly managed. The 2002 version of this standard introduced the concept of geotechnical categories based on the complexity and degree of geotechnical risk to the project and followed the guidance given in BS EN 1997-1 (Ref 2).

1.8 The current revision has been based on feedback received from users of the 2002 Standard and is intended to further simplify and improve the process. The reporting process has been also been aligned to reflect the requirements of BS EN 1997-1 and 1997-2 (Refs 2 and 3).
Mandatory Requirements

1.9 Paragraphs of this Standard that are mandatory requirements of the Overseeing Organisations, are highlighted by being contained in boxes. The remainder of the document contains advice and guidance.

Definitions and Abbreviations

1.10 The abbreviations and definitions below are used in the following sections of this standard:

**Designer:** The Organisation employed to carry out the actual design work required for a project.

**Designers Geotechnical Advisor (DGA):** The Geotechnical Engineer with the experience appropriate to the project being undertaken, and with the experience and qualifications of a GA as set out by the Site Investigation in Construction Series Documents produced by the Institution of Civil Engineers 1993 (Ref 8), employed by the Designer as Lead Professional, to oversee and act as focal point for the planning, procurement interpretation and implementation of the geotechnical aspects of a project.

**Earthworks:** Work of excavating or raising of ground.

**Geotechnical Activities:** Shall include without limitation, the design, construction and maintenance of:

a) Earthworks.
b) Strengthened Earthworks.
c) Ground Investigations, both intrusive and non-intrusive.
d) Excavation/assessment below sub-base level.
e) Earth retaining structures.
f) Structural foundations and excavations.
g) Excavations for tunnels and service ducts.

**Geotechnical Asset:** A principal element of the highway network, comprising the foundations to the pavement and structures, together with the land within the highway boundary, through which the route is formed, (including cuttings embankments, pavement subgrade and a diverse range of natural geological strata and man-made materials).

**Geotechnical Design Report:** The report setting out assumptions, data, methods of calculation and results of the verification of safety and serviceability as required by BS EN 1997-1.

**Geotechnical Engineering:** The application of sciences of soil and rock mechanics and engineering geology, in building, civil engineering construction, and the protection of the environment.

**Geotechnical Risk:** The risk to the project or the Overseeing Organisation’s asset created by the site ground conditions, public, environmental, construction and operational activities.

**Geotechnical Works:** The carrying out of Geotechnical Activities including associated aspects such as the assessment of contamination risks.

**Ground Investigation Report:** The report presenting all available geotechnical information and an evaluation of that information as required by BS EN 1997-2.

**Independent Checking Consultant (ICC):** A Geotechnical Consultant employed by the Overseeing Organisation to carry out an independent check of aspects of the geotechnical design.

**Managing Agent (MA):** The organisation responsible for the day to day management and maintenance of the highway network.

**Overseeing Organisation:** The governmental or other body with statutory responsibility for the highway.

**Overseeing Organisation Site Nominee (OOSN):** The representative of the Overseeing Organisation based on site.

**SEAF:** Strengthened Earthwork Appraisal Form (included in Appendix E).

**Strengthened Earthworks:** Placed or in situ soil or other material, the stability of which has been improved by and including without limitation, inclusions in the form of tensile reinforcement acting through interface friction, bearing or other means, e.g. reinforced soil, soil nailing or by external support such as gabions.
**Technical Approval Authority (TAA):** The organization responsible for agreeing the Approval in Principle and subsequently accepting the relevant certificates for the design of structures covered by BD 2 (Ref 10).

**Third Party:** Any person, organisation or other legal entity that is not employed directly or indirectly by the Overseeing Organisation.

**Associated Standards and Advice Notes**

1.11 The following standards are associated with HD 22:

- HA 44 (DMRB 4.1 Ref 4) – Earthworks - Design and preparation of contract documents
- HD 41 (DMRB 4.1.3 Ref 5) – Maintenance of highway geotechnical assets
- HA 73 (DMRB 4.1.7 Ref 6) – Specific advice in relation to ground investigations on contaminated land
- HA 74 (DMRB 4.1.6 Ref 7) – Treatment of Fill and Capping Material Using Either Lime or Cement or Both

**Scope and Application**

1.12 This Standard sets out in four Key Stages the procedures and documentation to be used for all geotechnical works on Overseeing Organisation Highway Projects and projects that affect the Overseeing Organisation’s asset. The purpose of the Standard is to ensure that the geotechnical risks are identified and managed. This process is backed up by the submission of one or more Geotechnical Certificates as appropriate.

1.13 The procedures are applicable to:

a) Projects promoted by the Overseeing Organisation, where the Overseeing Organisation is responsible for procurement of both the design and construction.

b) Projects promoted by the Overseeing Organisation, where the design and construction procurement is the responsibility of a Third Party.

c) Those parts of projects promoted by a Third Party, where they adjoin or otherwise affect highways under the jurisdiction of the Overseeing Organisation.

d) Planning applications/projects referred to the Overseeing Organisation for direction, where they adjoin or otherwise affect a highway under the jurisdiction of the Overseeing Organisation.

e) In Scotland, for road projects promoted by the Trunk Road Authority, the principles of this Standard are to be adopted, but differing organisational structures mean that separate certification and checking requirements as set out in SH 4/89 (Ref 21) are currently being retained.

1.14 All projects where Geotechnical Activities (as defined in 1.10) are involved shall be certified by the Design Organisation. As well as the projects indicated in paragraph 1.13, the procedures set out in this Standard are also required for the following processes, whether carried out as part of another project, or as projects in their own right:

a) Where geotechnical information is required as part of assessment, design and or remedial works for structures covered by BD 2 (Ref 10).

b) Installation by trenchless or other techniques of service crossings, where the internal diameter of that crossing is 2000mm or less.

c) The design of remedial works to rectify defects affecting the geotechnical asset.

d) Temporary works involving geotechnical activities that affect the Overseeing Organisation’s asset.

1.15 This Standard also introduces the requirements for all Strengthened Earthworks to be individually appraised, using the SEAF, which mirrors the Approval in Principle process that is used for highway structures and described in BD 2 (Ref 10).
Implementation

1.16 This Standard shall be used forthwith on all projects currently in preparation except where the preparation of a contract has reached a stage at which, in the opinion of the Overseeing Organisation, its use would result in significant additional expense or delay progress.

Liaison between Overseeing Organisation and Design Organisation

1.17 Each Overseeing Organisation shall have on its staff, or shall appoint, a GA with responsibility for the geotechnical aspects of the work of the Overseeing Organisation. For each project, the Designer shall also appoint a lead professional of DGA as defined in Site Investigation in Construction Series Documents (Ref 8), as their focal point for all the geotechnical aspects of that project. The GA and the DGA shall liaise on the geotechnical aspects of the project.

Independent Checking – Application to Scotland only

1.18 The Overseeing Organisation may from time to time appoint a Geotechnical Consultant to carry out an Independent Check of the Geotechnical Design of a project. This Consultant shall be called the ICC. The ICC may where required by the Overseeing Organisation act as the Overseeing Organisation’s GA. Procedures in regard to the requirements and adoption of the geotechnical certification and checking process in Scotland are set out in SH4 /89 (Ref 17).

Construction, Design And Management (CDM) Regulations

1.19 The reports produced as part of the Geotechnical Certification process can be used to fulfil the requirements of the CDM regulations (Ref 9) as they shall document the residual project Health and Safety risks and the methods employed to avoid, reduce and control these. The reports shall be included in any tender documentation and the pre-construction information and construction phase plan. They shall subsequently form part of the Health and Safety File.

Geotechnical Certificate

1.20 A Geotechnical Certificate signed by the DGA shall accompany ALL geotechnical submissions made by the Designer to the Overseeing Organisation. A model Geotechnical Certificate is presented in Appendix A. This Certificate may, if required, be incorporated within the contract documentation for a project; as part of the contract certification for that project. On receipt of a Geotechnical Certificate and its accompanying submission, the Overseeing Organisation or its representative will respond within a time limit laid down in the relevant contract documentation or within any such other time limit agreed (generally 28 days). The professional responsibility for the geotechnical work rests with the Designer, and any agreement given by the Overseeing Organisation in the course of the Geotechnical Certification process shall not relieve the Designer of that responsibility.
2. MANAGEMENT OF GEOTECHNICAL RISK

2.1 To be effective in terms of reducing risk and identifying opportunities, geotechnical risk management should be started as soon as possible following project identification. Appendix A of Standard HD 41 (Ref 5) provides advice on what constitutes geohazards that pose risks and will need to be considered when developing the risk registers for a project. The establishment of the Geotechnical Risk Register is an essential part of these procedures and is developed and refined as the project progresses.

2.2 Geotechnical risk management should not be carried out in isolation, but should be considered as an integral part of the whole of the project process from initial planning through to construction and completion. The processes set out in this Standard will require interaction between all members of the project team.

2.3 To ensure that the geotechnical risks are identified and then correctly managed this Standard requires the project team to follow a logical sequence of reporting and review of the geotechnical design process. The Standard sets out Key Stages to be followed during the process of planning and reporting Geotechnical Activities (as defined in 1.10) for all highways under the jurisdiction of the relevant Overseeing Organisation. These Key Stages link in with the major parts of the overall project procurement process.

2.4 There are four Key Stages in the Geotechnical certification procedure. These stages are arranged to be an integral part of the overall project progression to ensure the procurement of the geotechnical information necessary to undertake an accurate assessment of project risks. They are listed below:

Key Stage 1 Initial Review of Project and Geotechnical Risks to determine its Geotechnical Classification and thus the requirement for Geotechnical Certification: This stage ensures that potential geotechnical risks are identified at project inception. The requirements for specialist geotechnical processes are also assessed at this stage. The document required from the Designer at this stage is the Statement of Intent (See Appendix B.)

Key Stage 2 Preliminary Assessment including Preliminary Certification: This stage contributes to the preparation of the outline design and where necessary the requirement for land acquisition and orders preparation. The documents required from the Designer at this stage are the Preliminary Sources Study Report (Desk Study) and the Ground Investigation Report. (See Appendices C and D.)

Key Stage 3 Geotechnical Design and Construction Certification: This stage provides the information for the detailed design and for the contractor to prepare and carry out construction. The output required from the Designer at this stage is a Geotechnical Design Report with all sections completed prior to construction of relevant areas. (See Appendix E.)

Key Stage 4 Geotechnical Feedback: This stage reports on all construction work and particularly any unexpected ground conditions requiring changes to design that occurred. This Key Stage is a requirement in contracts let by the Overseeing Organisation. The output required from the Designer at this stage is the Geotechnical Feedback report (See Appendix F.)

2.5 The Statement of Intent, Preliminary Sources Study Report (Desk Study), the Ground Investigation Report, the Geotechnical Design Report and the Feedback Report comprise the main requirements for this Standard. These reports are supported by a single certificate system included in Appendix A.
3. GEOTECHNICAL CERTIFICATION PROCEDURES

3.1 The Geotechnical Classification shall be agreed by the Overseeing Organisation and the Designer, irrespective of procurement method or design/construction responsibility, as part of the Key Stage 1 as soon as the project brief has been agreed.

3.2 Depending on the complexity of the proposed geotechnical works and the geotechnical risk implications to health and safety, all projects shall have their Geotechnical Classification established by being placed in one of the geotechnical categories which follow the guidance given in BS EN 1997-1 (Ref 2).

**Geotechnical Category 1:** Projects which only include small and relatively simple structures, earthworks or geotechnical activities, for which it is possible to ensure that the fundamental requirements will be satisfied on the basis of experience and qualitative geotechnical investigations. The Geotechnical activities/structure must also carry a negligible risk in terms of overall stability, ground movements and known ground conditions. In these cases the procedures may consist of routine methods for foundation design and construction.

Category 1 procedures should only be used where is no excavation below the water table or where comparable local experience indicates that a proposed excavation below the water table will be straightforward.

**Geotechnical Category 2:** Projects which include conventional types of geotechnical structures, earthworks and activities, with no exceptional geotechnical risks, unusual or difficult ground conditions or loading conditions. Designs for Category 2 should normally include quantitative geotechnical data and analysis to ensure that the fundamental requirements are satisfied. Routine procedures for field and laboratory testing and for design and execution may be used.

The majority of geotechnical activities associated with highways should fall into this category.

**Geotechnical Category 3:** Projects which involve geotechnical activities or structures which fall outside the limits of Categories 1 and 2. These projects include very large, unusual or complex geotechnical activities, earthworks and structures or those involving abnormal geotechnical risks or unusual or exceptionally difficult ground conditions.

3.3 These classifications are determined on the basis of the geotechnical works and risk implications. They do not necessarily correspond to the categories adopted for technical approval to BD 2 and a Category 3 structure may not correspond to Geotechnical Category 3. For example, a complex structure may have conventional foundations or a conventional structure may be located in an area where abnormal geotechnical risks are present. Determination of the geotechnical classification in such situations should include discussions with the structural designer and Technical Approval Authority (TAA).

3.4 Following the Initial Review in Key Stage 1, all projects that clearly involve geotechnical activities or where there is a possibility that they may be required, shall be placed in one of the Geotechnical Categories 1-3.

3.5 For projects where, at the outset, it is clear that geotechnical activities are absent, the project file shall be annotated to that effect and no further action need be taken unless the project brief is amended. The Geotechnical Classification shall be reviewed if there is a change to the project brief. Subsequent Certification procedures will depend on that revised Geotechnical Classification, type of project or the procurement method to be used.

3.6 Projects shall have their Geotechnical Classification reassessed at each Key Stage. This reassessment may indicate that for some projects, no further Geotechnical Certification is required. For these projects the Overseeing Organisation will...
record this decision in the project file and notify the Designer of the reclassification. For projects retaining a Geotechnical Category of 1 to 3 the Geotechnical Certification process appropriate to that classification shall be followed.

3.7 The Geotechnical Certification Process is described in subsequent sections 4 to 7 of this Standard.

a) Key Stage 1: Initial Review of Project – Section 4

This section outlines the areas to be considered when making an assessment on the requirement for a project to be subject to Geotechnical Certification and for the Geotechnical Category to be assigned. The Initial Review is to be undertaken by the Designer and reported in the Statement of Intent, which should be produced for all projects where geotechnical activities are involved. However, in the event of any excessive delays in the project procurement or any change in the Design Organisation, a new Statement of Intent will be required, regardless of the current stage of the project.

b) Key Stage 2: Preliminary Certification – Section 5

All projects, where geotechnical activities are, or may be, envisaged shall be subject to the Preliminary Certification procedures. This section details the requirements for this Preliminary Certification. The method of procurement will determine the subsequent certification requirements, which will be agreed by the Overseeing Organisation.

For Category 1 projects, a separate Preliminary Sources Study Report is not required; reporting of the desk study can be incorporated in the Ground Investigation Report.

c) Key Stage 3: Geotechnical Design and Construction Certification – Section 6

The requirements for reporting at Key Stage 3 apply to all projects where geotechnical activities occur. Paragraphs 1.13 and 1.14 provide further information.

Geotechnical Specialist Process Certification: Requirements for Strengthened Earthworks

When a designer of any project, irrespective of the method of procurement, proposes the use of Strengthened Earthworks, they shall obtain acceptance to their design proposals by submitting a Strengthened Earthworks Appraisal Form (SEAF).

d) Key Stage 4: Geotechnical Feedback – Section 7

There is a contractual requirement to provide as built information for all projects undertaken on behalf of the Overseeing Organisation. For geotechnical activities, this is presented in the form of a Geotechnical Feedback Report and this report forms the final part of the Geotechnical Certification for a project.

Geotechnical Reports – General Requirements

3.8 A fundamental requirement of the Geotechnical Certification process is the production of reports to accompany the Geotechnical Certificates. The reports must demonstrate how the geotechnical risks on a project are to be managed during the design and construction of a project. An overview of the requirement of the reports is given in this section and the required formats are presented in the Appendices B to F.

The five reports are as follows:

- Statement of Intent (SoI).
- Preliminary Sources Study Report (PSSR).
- Ground Investigation Report (GIR).
- Geotechnical Design Report (GDR).
- Geotechnical Feedback Report (GFR).

3.9 The aim of these reports is to set out, in a logical manner, the Design Organisation’s processes in identifying and overcoming or managing geotechnical risks on a project. The Geotechnical Design Report is a key document, which clarifies how the geotechnical design was undertaken and forms part of the records for the project.
3.10 The geotechnical reports produced as part of the Geotechnical Certification process are intended to be living documents, in that they shall be updated and amended as the design progresses, information becomes available and geotechnical risks are identified and resolved. Should the method of procurement or design organisation be changed during the life of the project, geotechnical information produced for the project shall be transferred. The outgoing Designer shall complete and certify the geotechnical reporting to the stage required at handover. Any reports so certified shall be passed to the new Designer, as part of information provided with the contract documentation for the procurement of the project. Responsibility for the information in any reports handed over shall pass to the new Designer. If the new Designer is not content with the information so provided this shall be made clear and the subsequent versions of the reports that are produced shall cover these issues.

3.11 The content of the various reports will depend on the geotechnical complexity of the project. However the report section numbering indicated in Appendices B, C, D and F shall be adhered to irrespective of project size, with sections not being used or not relevant being noted as such in the contents page of each report. The final content requirements will be agreed between the Overseeing Organisation’s Geotechnical Advisor and the Designer’s Geotechnical Advisor. For projects within Geotechnical Category 1 it is acceptable to produce a shortened form of report to the same format that addresses the areas where geotechnical risk needs to be managed.

3.12 All geotechnical reports produced under the auspices of Geotechnical Certification are intended to be open documents and available to all parties during the progress of a project throughout its design, tender and construction phases.

3.13 One hard and one electronic copy of the final version of all reports, produced for a project, shall be issued to the Overseeing Organisation. For projects undertaken on behalf of the Highways Agency, these records will be retained in their Archive which is contained within the Highways Agency’s Geotechnical Data Management System (HAGDMS). Full details of the requirements for the formatting and presentation of electronic reports for HAGDMS are available from HAGDMS. In brief, this comprises a copy of all reports in Adobe Acrobat .pdf format on a master CD or DVD along with factual Site Investigation data in AGS (Association of Geotechnical and Geoenvironmental Specialists) data transfer format, as detailed in MCHW.

3.14 One copy of any factual report produced for the project shall be forwarded to the British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham NG12 5GG, for inclusion in the National Borehole Database. In Northern Ireland any factual report shall be forwarded to the Geological Survey of Northern Ireland, 20 College Gardens, Belfast, BT9 6BS.

3.15 [Scotland only] Whilst the precise form of the Geotechnical Reporting detailed in this Standard is not mandatory in Scotland, the principles and functions of the Geotechnical Report System are endorsed and recommended for consideration for usage on Scottish trunk road work. Accordingly the Overseeing Organisation may take the view on a project specific basis, that individual contracts are to include a requirement for the production, on a developing basis, of a designer prepared Geotechnical Report.
4. KEY STAGE 1: INITIAL REVIEW OF PROJECT

4.1 In order to establish the Geotechnical Certification requirements of a project it shall be reviewed to determine its Geotechnical Category.

4.2 To determine the Geotechnical Category, the complexity of the project shall be identified together with the geotechnical activities that may be involved. These shall be assessed together with the risks posed by and to the project. The Geotechnical Categories are defined in paragraph 3.2 based on the requirements of BS EN 1997-1.

4.3 Following the Initial Review, determination of geotechnical classification and appointment of the Design Organisation, the Designer’s Geotechnical Advisor shall submit a “Statement of Intent” to the Overseeing Organisation. The Statement of Intent is intended to identify known or suspected geotechnical risks and to state the scope, purpose, estimated programme and cost of the initial geotechnical assessments to Preliminary Certification at Key Stage 2. This shall also include the preparation of the preliminary Geotechnical Risk Register. The format of the Statement of Intent is mandatory and is given in Appendix B. It is intended to be a brief document and for many projects will take the form of a letter.

4.4 The Statement of Intent shall be subject to the agreement of the Overseeing Organisation’s Geotechnical Advisor, before the Designer’s Geotechnical Advisor proceeds to Key Stage 2. This stage enables early dialogue to be established between these parties.

4.5 The Statement of Intent may form part of any Commissioning Report that the Designer is required to produce on appointment. However, the Statement of Intent must still be submitted to the Overseeing Organisation’s Geotechnical Advisor as part of the certification process.

4.6 For projects with a geotechnical classification of 2 or 3, the Design Organisation a separate Preliminary Sources Study Report (Desk Study) and Ground Investigation Report, as appropriate, should be prepared and submitted for Key Stage 2.

4.7 For Geotechnical Category 1 projects, a separate Preliminary Sources Study Report is not required.

4.8 For projects, which clearly indicate that no geotechnical activities will be involved, there is no need for them to be assessed further and the Project file shall be annotated accordingly.
5. KEY STAGE 2: PRELIMINARY CERTIFICATION

5.1 There are two outputs from Key Stage 2: The Preliminary Sources Study Report (Desk Study) and the Ground Investigation Report. For Category 1 schemes, a separate Preliminary Sources Study Report (PSSR) is not required; reporting of the desk study can be incorporated in the Ground Investigation Report (GIR). The PSSR shall be completed as a matter of priority after project inception. It shall cover the geotechnical and other investigation implications for the feasibility of all project options. The PSSR is an important document for the Overseeing Organisation to use when assessing the Health and Safety hazards and environmental aspects presented by a project, especially as part of any initial route determination. The mandatory format for the report is given in Appendix C.

5.2 The content of the PSSR shall cover the geotechnical risks, implications and feasibility of all scheme options. Reference shall be made to the AGS Guide to the Model Document (Ref 11), TRL Report 192 (Ref 12) and BS 5930 (Ref 13) when preparing the document.

5.3 The PSSR is required for all Category 2 and 3 projects and includes a site reconnaissance. The PSSR is an important document, not only from a geotechnical viewpoint but also because the Geotechnical Risk Register (Ref 1) assists the Overseeing Organisation in assessing the complexity and history of the site, especially with reference to the Health and Safety hazards presented. The register establishes the approach required to manage those risks identified and provides the geotechnical input into the assessment of project risks required by documents such as the Highways Agency’s Value for Money Manual (Ref 16).

5.4 For Geotechnical Category 1 projects, the desk study should be reported as part of the GIR. Following acceptance of the Statement of Intent, the Designer shall carry out any agreed investigations in order to produce the GIR and following a review of the risks, confirm that the project category is correct.

5.5 The PSSR shall address the geological, geotechnical, geomorphological, hydrological and geo-environmental aspects of the project site as well as the historical development of the area. Contamination risks shall be investigated and reported on.

5.6 The PSSR shall give a preliminary engineering assessment of the project area and inform of any likely hazards to construction. It shall identify the risks and consequences to the project of the information gained and using the risk register establish the means to manage those risks.

5.7 The PSSR, within its Annex A, shall develop the objectives and methodology for phased investigation of ground conditions, which should cover both geotechnical and geo-environmental requirements.

5.8 On the basis of the information gathered for the PSSR, the significant geotechnical issues will be identified and it will be possible to assess the vulnerability of a project to these issues and to any associated hazards. The initial risk register produced as part of the Statement of Intent shall be updated to reflect the greater amount of site specific information that is now available. This updating of the risk register is part of the risk management system which shall be repeated through to project completion as more data becomes available.

5.9 The PSSR shall confirm or amend the project’s Geotechnical Classification and the Overseeing Organisation’s Geotechnical Advisor (GA) may decide, subsequent to receipt of the PSSR, that no further Geotechnical Certification is required. Should the brief for the project be revised, then the original Statement of Intent shall be revised as necessary, and a decision made by the Overseeing Organisation’s GA on the requirements for further Geotechnical Certification.

5.10 Where the Overseeing Organisation is responsible for procuring the project, Annex A to the PSSR shall be prepared making recommendations for the ground investigation phase. Depending on the extent of information available and/or the method of procurement, the production of Annex A may be...
combined with the PSSR or delayed until a later stage of the project. Where a ground investigation is procured in a staged manner at different times, revisions to Annex A shall be clearly annotated with a revision suffix to provide a unique descriptor. This shall be discussed and agreed between the Overseeing Organisation’s GA and the Designer’s Geotechnical Advisor (DGA).

5.11 On completion of the ground investigation the Designer shall submit a GIR (Appendix D) fully completed with all the factual records and test results produced by the specialist contractor (preferably produced as a separate volume). Confirmation or amplification of problems found in the PSSR shall be included in this report. Where the project is a new route or alignment, the Designer shall programme this work, so that the Report and all relevant design information are available for consideration for the preparation and submission of the 1:2500 Compulsory Purchase Order plans.

5.12 Where a supplementary ground investigation is required, a revised Annex A to the PSSR shall be produced, followed, after the completion of the additional investigation, by the updating of the GIR to include this information.

### Ground Investigation Report

5.13 The contents of the GIR shall be as set out in BS EN 1997-2. This shall consist of:

- a presentation of all available geotechnical information including geological features and relevant data;

- a geotechnical evaluation of the information, stating the assumptions made in the interpretation of the test results. The GIR shall state known limitations of the results.

5.14 The format to be followed in presenting the report is given in Appendix D.
6. KEY STAGE 3: GEOTECHNICAL DESIGN AND CONSTRUCTION CERTIFICATION

6.1 At detailed design stage, the Designer shall complete the Geotechnical Design Report (GDR) (as set out in Appendix E). The GDR is the Designer’s detailed report on their interpretation of all the investigations and the design of the geotechnical elements of the project and shall include all items covered in the Ground Investigation Report (GIR) updated as necessary. The report shall detail how the risks identified in the Geotechnical Risk Register have been managed.

6.2 A Geotechnical Certificate (Appendix A) shall accompany all submissions of the GDR. If significant amendments, which affect the geotechnical design, are made during design development and construction, then the GDR shall be updated by way of a revision to reflect those changes. This revision shall also be submitted under cover of a new Geotechnical Certificate.

6.3 The GDR may be submitted in whole, or parts, to suite the design and construction programme as agreed with the Overseeing Organisation’s Geotechnical Advisor. However, the GIR shall be submitted and accepted before any section of the GDR is submitted i.e. Key Stage 2 must be complete before Key Stage 3 submissions commence. Relevant sections of the GDR shall be submitted 28 days prior to the programmed start date of the work covered by the submission. (This time limit may be amended by contract documentation or in agreement with the Overseeing Organisation.) No works covered by the Geotechnical Design Report should be commenced by the Contractor before the relevant Certification for that part of the Works has been completed.

6.4 The full GDR shall be submitted as part of the certification at Key Stage 3. It shall comprise the information arising from the detailed design stage of the project. The format is given in Appendix E. For simple designs, a single sheet may be sufficient. In addition to the requirements set out in BS EN 1997-1 it will be necessary to include a separate Appendix providing the completed Specification Tables 1/5, 6/1, 6/2 and 6/3 and Series 500, 600 and 1600 Appendices.

6.5 If, as part of the Contract Documentation, the Contractor has been provided with a preliminary or draft GDR, produced for the project by a previous Designer, the Contractor may utilise the information contained within that report by expanding and updating it, to reflect the Contractor’s design and any changes to time dependent information. Responsibility for any information utilised from such a report shall be the Contractor’s and the Contractor’s Designer.

6.6 Where Geotechnical Certification is being undertaken for highway structures covered by BD 2, the Designer responsible for this shall procure and report ground investigations as required to achieve geotechnical certification. The relevant sections of the GDR shall be attached to the Assessment Report or AIP for the structure. If strengthened earthworks are envisaged or required, then additionally Section 8.3 of the Geotechnical Design Report shall be completed together with a Strengthened Earthwork Appraisal Form (SEAF) (see Appendix E).

Brief for Overseeing Organisation Site Nominee (Overseeing Organisation responsible for procurement)

6.7 The Geotechnical Design Report shall be provided to the Overseeing Organisation Site Nominee (OOSN) on the construction site, for guidance. This is to ensure that the OOSN is fully aware of the development and philosophy of the geotechnical design and will thus be alerted to possible geotechnical risks and be put in a sound position to deal with those issues and matters which are within the OOSN’s delegated powers.

6.8 During the course of the construction process, any significant differences, between the actual conditions found and those expected, are to be reported formally in writing by the Designer to the OOSN, who in turn shall report them to the Overseeing Organisation without delay. The consequences of these differences shall be reported in the Geotechnical Feedback Report (GFR) (Appendix F).
Additional Geotechnical Investigation during Main Works Contract

6.9 Should there be a need for additional ground investigations to be carried out during the course of a main works contract; or if the design is amended from that contained in the certified GDR, then this additional/amended work shall be subject to Geotechnical Certification.

6.10 Prior to any additional GI work being carried out, a revised Annex A to the PSSR covering the proposed work, together with a Geotechnical Certificate (Appendix A), shall be submitted by the Designer to the Overseeing Organisation via the OOSN. Following the completion of the investigation and any design work necessary, the GDR shall be updated. This revised GDR shall be submitted under cover of a fresh Geotechnical Certificate and shall include the additional work and any amendment to the design.

Requirements For Strengthened Earthworks

6.11 Where the use of Strengthened Earthworks is proposed on any project, irrespective of procurement method, the Designer shall, prior to the submission of any design data to the Overseeing Organisation, complete and submit a SEAF based on the model form set out in Appendix E.

6.12 Where required by contract documentation, an outline SEAF may have to be submitted and approved prior to the return of any tender documentation. When this is the case a full SEAF will be required to be resubmitted once contracts have been awarded and design work undertaken.

6.13 Strengthened Earthwork designs shall be checked by a Checking Team, which may be from the Designer, but shall be independent of the Design Team.

6.14 The completed SEAFs shall be attached, as an Annex to the GDR.
7. KEY STAGE 4: GEOTECHNICAL FEEDBACK

7.1 The Designer shall, at the completion of the construction phase, produce a Geotechnical Feedback Report (GFR). The requirements for the feedback report and format are illustrated in Appendix F. Key Stage 4 is required as part of the contract requirements for projects undertaken on behalf of the Overseeing Organisation.

The Geotechnical Feedback Report

7.2 The GFR shall be completed by the Designer’s Site Staff and shall be submitted to the Overseeing Organisation within 6 months of Project Completion.

7.3 The GFR is required for all projects, irrespective of the method of procurement. It should be prepared as an ongoing task during the contract construction period.

7.4 The report shall utilize construction data to provide a record of the location and nature of materials encountered and utilised. Particular geotechnical problems and their solutions shall be recorded. The report shall also highlight any area of the specification or standards used that should be reviewed in the light of problems encountered on site. It also should highlight any requirements for ongoing monitoring or abnormal maintenance requirements.

7.5 The format of the GFR is given in Appendix F. A reduced scope of reporting for Category 1 projects is appropriate. This should be agreed with the Overseeing Organisation prior to submission of the report.

7.6 The GFR should be produced as an independent document, but once accepted should be incorporated within the Health and Safety File produced for the scheme.

7.7 The GFR is the required submission at Key Stage 4.

7.8 As Built drawings suitable for loading onto Highways Agency’s Geotechnical Data Management System (HAGDMS).
8. REFERENCES

1. Managing Geotechnical Risk
   DETR Partners in Technology Programme
   Institution of Civil Engineers Thomas Telford 2001

2. BS EN 1997-1 Eurocode 7: Geotechnical Design – Part 1: General Rules

3. BS EN 1997-2 Eurocode 7: Geotechnical Design – Part 2: Ground Investigation and Testing

4. HA 44 – Earthworks: Design and Preparation of Contract Documents (DMRB 4.1.1)

5. HD 41 – Maintenance of Highway Geotechnical Assets (DMRB 4.1.3)

6. HA73 – Site Investigation for Highway Works on Contaminated Land (DMRB 4.1.7)

7. HA 74 – Treatment of Fill and Capping Materials Using Either Lime or Cement or Both (DMRB 4.1.6)

8. Site Investigation in Construction Series Documents 1 to 4
   Site Investigation Steering Group. Institution of Civil Engineers. Thomas Telford 1993

9. Construction (Design & Management) Regulations
   Statutory Instrument 2007 No 320

10. BD 2 – Technical Approval of Highway Structures (DMRB 1.1)

11. AGS Guide to the Model Document
    Association of Geotechnical Specialists

12. Sources For Site Investigation in Britain TRL Report 192
    Transport Research Laboratory, Crowthorne 1996

13. Code of Practice for Site Investigations BS 5930
    British Standards Institution 1999

14. Electronic Transfer of Geotechnical Data from Ground Investigations
    Association of Geotechnical Specialists 3rd Edition 2000

    Volume 1: Specification for Highway Works (December 1998)
    Volume 4: Bills of Quantities for Highway Works (December 1991): HMSO (MCHW 4)

    Highways Agency HMSO April 1999

17. SH 4/89 – Geotechnical Certification Procedures (DMRB 4.1.7)
# 9. ENQUIRIES

All technical enquiries or comments on this Standard should be sent in writing as appropriate to:

<table>
<thead>
<tr>
<th>Chief Highway Engineer</th>
<th>G CLARKE</th>
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<tbody>
<tr>
<td>The Highways Agency</td>
<td>Chief Highway Engineer</td>
</tr>
<tr>
<td>123 Buckingham Palace Road</td>
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<tr>
<td>London</td>
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<tr>
<th>Director, Major Transport Infrastructure Projects</th>
<th>A C McLAUGHLIN</th>
</tr>
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<tr>
<td>Transport Scotland</td>
<td>Director, Major Transport Infrastructure Projects</td>
</tr>
<tr>
<td>8th Floor, Buchanan House</td>
<td>G4 0HF</td>
</tr>
<tr>
<td>58 Port Dundas Road</td>
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<td>Glasgow</td>
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<tr>
<th>Chief Highway Engineer</th>
<th>M J A PARKER</th>
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<tr>
<th>Director of Engineering</th>
<th>R J M CAIRNS</th>
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<td>The Department for Regional Development</td>
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<td>Roads Service</td>
<td>Director of Engineering</td>
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<td>Clarence Court</td>
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<td>10-18 Adelaide Street</td>
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<td>Belfast</td>
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<td>BT2 8GB</td>
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APPENDIX A  GEOTECHNICAL CERTIFICATE

Geotechnical Certificate

Scheme Title

Geotechnical Certificate

(*- Delete as appropriate)

Certificate Seq. No........

HAGDMS No.....

GEOTECHNICAL CERTIFICATE

Form of Certificate to be used by the Designer for certifying the design of geotechnical works

1. We certify that the Reports*, Design Data*, Drawings* or Documents* for the Geotechnical Activities listed below have been prepared by us with reasonable professional skill, care and diligence, and that in our opinion:
   i. constitute an adequate and economic design for the project
   ii. solutions to all the reasonably foreseeable geotechnical risks have been incorporated
   iii. the work intended is accurately represented and conforms to the Employer’s*/Client’s* requirements
   iv. with the exception of any item listed below or appended overleaf, the documentation has been prepared in accordance with the relevant standards from the Design Manual for Roads and Bridges and the Manual of Contract Documents for Highway Works.

   *where the certificate is accompanying revision to design data already certified the following statement shall also be included*

   v. *The design elements covered by this certificate are not detrimental to the design elements previously certified and not amended by this certificate*

2. LIST OF REPORTS, DESIGN DATA, DRAWINGS OR DOCUMENTS

3. DEPARTURES FROM STANDARDS

List of any departures from relevant standards if none write ‘none’

August 2008

A/1
*4. INCORPORATION OF GEOTEchnICAL DATA INTO CONSTRUCTION DETAILS

*where the certificate is accompanying final design data the following statement shall also be included*

*The Reports, Design Data Drawings or Documents listed in 2 above have been accurately translated onto the construction drawings or other design documents bearing the unique numbers listed below/appended overleaf.*

Signed: .........................................................   *Signed: ........................................................
Designer (Designers Geotechnical Advisor)   *Contractor (Agent or Contracts Director)
Name: .........................................................   *Name: ....................................................…..
Date: .......................................................…   *Date: ....................................................…
On behalf of   *on behalf of
.........................................................   .......................................................…………

This Certificate is:

(a) received* (see note)
(b) received with comments as follows:* (see note)
(c) returned marked “comments” as follows:* (see note)

Signed: .........................................................
Overseeing Organisation Geotechnical Advisor
Name: .........................................................
Date: .........................................................

Note:
‘RECEIVED’ = SUBMISSION ACCOMPANYING CERTIFICATE IS ACCEPTED.
‘RECEIVED WITH COMMENTS’ = SUBMISSION ACCOMPANYING CERTIFICATE GENERALLY ACCEPTABLE BUT REQUIRE MINOR AMENDMENT WHICH CAN BE ADDRESSED IN SUBSEQUENT REVISIONS.
‘RETURNED MARKED COMMENTS’ = SUBMISSION ACCOMPANYING CERTIFICATE UNACCEPTABLE AND SHOULD BE REVISED AND RESUBMITTED.
APPENDIX B  FORMAT OF STATEMENT OF INTENT

1. SCHEME
Name and details of Scheme, key plan.

2. OBJECTIVES

3. EXISTING INFORMATION
Summary of existing information that has been identified to date.

4. GEOTECHNICAL RISK
Preliminary summary of key geotechnical risks that are envisaged.

5. PROPOSED STUDIES AND INVESTIGATIONS
Outline of proposed studies and investigations that are to be undertaken to achieve geotechnical certification.

6. SPECIALIST CONSULTATION
Details of any consultations required with reasons.

7. PROGRAMME AND COST
Estimated programme and cost of work involved in preparation of the Preliminary Sources Study and Ground Investigation Report and any physical work required up to completion of Key Stage 2 to support that report. (Not required in all cases).
APPENDIX C  FORMAT OF PRELIMINARY SOURCES STUDY REPORT

1. INTRODUCTION

Title Sheet, clearly indicating the name of the scheme, together with the title, details of the authorship and the version number of the report. The version number and date of the report shall be clearly placed as a footer to every page of the report.

Reference to Statement of Intent. Limits of study area and content and note of any previous geotechnical studies in the area.

2. SOURCES OF INFORMATION & DESK STUDY

Details of the results of all enquiries made and of all sources used for geotechnical, historical and other general information relevant to the area (Ref.12 and 13). Nil or negative responses should also be reported.

3. FIELD STUDIES

Description of any field activities undertaken for this report - walkovers, geomorphological/geological mapping, probing, pitting and testing work, drainage/hydrological studies, geophysical or photographic surveys etc.

4. SITE DESCRIPTION

The topography, geology, hydrology, hydrogeology, geomorphology, man-made features and historical development of the area should be investigated together with the geo-environmental and possible contamination issues. Most conveniently presented as a series of plans and overlays.

5. GROUND CONDITIONS

Description of soils anticipated, with engineering properties known and predicted; significance of geological formations, ground water conditions etc.

6. PRELIMINARY ENGINEERING ASSESSMENT

For each soil type and/or location preliminary consideration of the design implications including: General - location, classification, earthworks acceptability criteria, groundwater, likely difficulties and problems, areas/features to avoid.

Cuttings – side slopes (short and long term), potential acceptability of material, merits of special drainage or ground treatment, swelling problems.

Embankments – side slopes, characteristics and restrictions on use of particular soils, plant use options, drainage requirements, foundation treatment.

Subgrade – likely CBR values for cutting areas and for potential fill materials in embankments, capping layers and availability of material, drainage requirements.

Structure foundations – Alternative types of foundation likely to be applicable, estimates of bearing pressures and settlements, groundwater, problem areas/strata, potential construction difficulties etc.
Contaminated land/Soil Chemistry – possibility of harmful elements present in soil or groundwater and implications of these on health and safety. Scope for the reuse of marginal/recycled material within the works.

Any existing geotechnical problems i.e. Slope failures, solution features, mineworkings slopes with marginal factors of safety, very soft/highly compressible soils.

Effects of man made obstacles/site history.

7. COMPARISON OF PROJECT OPTIONS AND RISKS

List all geotechnical, geo-environmental, historical and other factors discovered which are likely to influence the project i.e. routes, alignment, health and safety or buildability.

An updated Geotechnical Risk Register; in which the risks of the primary hazards are assessed, the consequences of these risks to the project determined, and details of how the risks are to be managed given. CDM implications should be highlighted.

A statement of the preferred routes/options (on geotechnical grounds) should be given if appropriate.

8. DRAWINGS AND PHOTOGRAPHS

Site Plan (usually 1:10,000) with study limits and scheme options. Plans/overlays to show topography, historical development, existing trial holes, geology, geomorphology, hydrogeology, hazards including contaminated ground and man made features etc as appropriate. Geological longitudinal sections with cross-sections where appropriate.

Photographs both ground and air obtained for the study should be reproduced and referenced to the site plan.
ANNEX A TO PRELIMINARY SOURCES STUDY

1. OBJECTIVES and FORMAT OF ANY INVESTIGATION

(For example): To provide information to confirm and amplify the geotechnical and geomorphological findings of the Preliminary Sources Study, as reported separately and to obtain detailed knowledge of the soils encountered and their likely behaviour and acceptability. To ascertain ground water conditions and locations of underground workings, if any. Limits of work envisaged.

2. SPECIAL PROBLEMS TO BE INVESTIGATED

Location of structures. Sub-soil conditions below areas of high embankment. Aquifers and likely water-bearing strata affecting the works. Rock stability problems. Effects on adjacent properties etc. Any man-made features to be encountered. Contaminated ground.

3. PROPOSED INVESTIGATION

Fieldwork - details of exploratory work proposed for specific areas with reasons for choice of investigatory method. Laboratory work - details of proposals with reasons for choice of test and relevance to design. Summarised as tables. Requirement for Factual Data to be supplied in digital form to AGS Format.

4. SITE & WORKING RESTRICTIONS

Traffic management, difficult access, Statutory Undertaker’s plant, Network Rail restrictions, flora and fauna, designated sites e.g. SSSI’s.

5. SPECIALIST CONSULTATION

Details and reason if proposed.

6. PROGRAMME, COST AND CONTRACT ARRANGEMENTS

Anticipated start dates, contract periods, restrictions on programme, cost estimates (VAT excluded) for factual and interpretative work. Arrangements for contract work and supervision of contract.

7. REPORTING

Responsibility for reporting (with reasons), format and topics to be covered.
APPENDIX D  FORMAT OF GROUND INVESTIGATION REPORT

Note: This report shall meet the requirements for the Ground Investigation Report as set out in BS EN 1997-2, following the format set out below.

TITLE SHEET AND CONTENTS

Clearly indicating the name of the scheme together with the title, details of the authorship and the version number of the report. The version number and date of the report shall be clearly placed on every page of the report.

Contents of all volumes listed in the front of each volume with the contents of the particular volume highlighted. No Company specific disclaimers are to be attached to the report.

1. EXECUTIVE SUMMARY

2. INTRODUCTION
   2.1 Scope and objective of the report
   2.2 Description of project (including site description)
   2.3 Geotechnical Category of project
   2.4 Other relevant information

3. EXISTING INFORMATION

   This section should be a review carried out by the designer of all existing, geotechnically relevant information available on the project. The review should highlight the implications to the project of that information. The PSSR will be a basis for this section, but the information contained in it should be updated as necessary when such information is of a time-limited nature. Photographs obtained should be reproduced and clearly referenced.

   3.1 Topographical maps (old and recent)
   3.2 Geological maps and memoirs
   3.3 Aerial photographs (old and recent)
   3.4 Records of mines and mineral deposits (including an updated Mineral Valuer’s Report)
   3.5 Land use and soil survey information
   3.6 Archaeological and historical investigations
   3.7 Existing ground investigations (including the relevant investigations carried out for the Overseeing Organisation and the results of those investigations)
   3.8 Consultation with Statutory Bodies and Agencies for example (but not necessarily limited to): Natural England, English Heritage, Environment Agency.
   3.9 Flood Records
3.10 Contaminated land

3.11 Other relevant information (may include hydrology and hydrogeology, natural cavities, landslides, erosion and deposition, seismic etc.)

4. FIELD AND LABORATORY STUDIES

This section is to describe the investigations carried out by the Designer as part of the design process.

4.1 Walkover survey

4.2 Geomorphological/geological mapping

4.3 Ground Investigations. (Description of the investigations carried out by the designer, including an outline of the aims and reasoning behind the requirement for the investigation)

4.3.1 Description of fieldwork

4.3.2 A copy of the ground investigation report should be provided; this can be bound separately if required.

4.3.3 Results of in situ tests

4.4 Drainage studies

4.5 Geophysical surveys

4.6 Pile tests

4.7 Other field work

4.8 Laboratory investigation

4.8.1 Description of tests

4.8.2 Copies of test results (may be bound separately or with 4.3.2 above)

(For sections 4.3.2, 4.3.3 and 4.8.2 the information should also be provided in digital form as set out in the Association of Geotechnical Specialists publication ‘Electronic Transfer of Geotechnical Data from Ground Investigations’ (Ref 14).

5.0 GROUND SUMMARY

This section describes the Designer’s summary interpretation of the results of the investigations carried out in sections 3 and 4 above. The Ground Summary shall provide the summary interpretation on the topography, geology, hydrology, hydrogeology, geomorphology, man-made features and historical development of the project and may be supplemented by a series of plans and overlays. If appropriate, a general ground model to be used for design shall be presented for the site.
6.0 GROUND CONDITIONS AND MATERIAL PROPERTIES

This section is the Designer’s evaluation of the ground conditions at relevant sections along the project route and shall present the ground model to be used for design at each relevant section. Details and descriptions of the various materials to be encountered shall be included together with a full justification for the parameters adopted for the geotechnical design. Full references shall be given especially where generic parameters are to be adopted.

6.1 Topsoil

6.2 Made ground, including details of any contamination/contaminated areas

6.3 Separate heading for each material

6.4 Groundwater/chemistry

7.0 GEOTECHNICAL RISK REGISTER

This section contains an update of the Geotechnical Risk Register established for the project. The register will highlight the risks and consequence of those risks together with the measures taken to mitigate those risks. It is essential that there is cross referencing in the report to ensure that the mitigation measures are taken forward in the design outlined in the Geotechnical Design Report.

8.0 REFERENCES
APPENDIX E    FORMAT OF GEOTECHNICAL DESIGN REPORT

Note: This report shall meet the requirements for the Geotechnical Design Report as set out in BS EN 1997-1 following the format set out below. The report shall include full details of the interpretation of design data and justification for the design and include a layout drawing of that part of the works. The report is subdivided into sections on cuttings, embankments, structures and strengthened earthworks and shall be further subdivided for each unique earthwork or structure. Drainage design relevant to subgrade design and capping shall be included. For larger schemes, the designer is encouraged to submit this section of the report in parts to suit the design and construction programme for the works (see paragraph 6.3). A discussion of potential contamination and proposed remediation requirements (if required) shall be included.

BS EN 1997-1 requires this report to include a plan of supervision and monitoring, as appropriate. Items, which require checking during construction or, which require maintenance after construction shall be clearly identified. This shall be reported in Section 9 of this report.

1.0 EARTHWORKS

1.1 Cutting stability

*Full details of the methods of analysis, soil parameters, drainage, slope angles, CBR and other considerations. Summary of design including location, side slopes, maximum and typical depths, relevant site investigation, assumed soil strata and ground water conditions, earthworks, drainage requirements and pavement design. This may be either tabulated or submitted as a series of summary forms.*

1.2 Embankment stability

*Full details of the methods of analysis, soil parameters, drainage, slope angles, CBR and other considerations. Summary of design including location, side slopes, maximum and typical depths, relevant site investigation, assumed soil strata and ground water conditions, predicted settlements, earthworks, drainage requirements and pavement design. This may be either tabulated or submitted as a series of summary forms.*

1.3 Re-use of Materials

*Discussion of potential for re-use of excavated material and appropriate earthworks acceptability criteria.*

2.0 HIGHWAY STRUCTURES

Details of Highway Structure type

*Full details of the method of analysis and soil parameters assumed in design of foundations and retaining elements. Summary of design including allowable bearing pressures, pile capacity, earth pressures, differential settlement and protection against chemical attack to be provided for each structure. This information may be either tabulated or submitted as a series of summary forms.*
3.0 STRENGTHENED EARTHWORK

Details of Strengthened Earthworks.

Full details of the method of analysis and material parameters assumed in the design with reference to the appropriate SEAF. Summary of design to be provided at each location. This information may be either tabulated or submitted as a series of summary forms.

4.0 DRAINAGE

Details of how the drainage design will address the groundwater conditions and how groundwater risks are to be managed.

5.0 PAVEMENT DESIGN, SUBGRADE & CAPPING

Method of analysis, soil parameters, groundwater assumptions.

6.0 ASSESSMENT OF POTENTIAL CONTAMINATION

6.1 Summary of the extent of the contamination testing that has been undertaken.

Description of the liaison that has been undertaken with the statutory authorities and the scope of risk assessments carried out to comply with regulatory authorities requirements. This section is to include a summary of the current status with regards to regulatory approval and shall record the acceptance of these risk assessments by the statutory body.

6.2 Summary of the findings and conclusions of the risk assessments including the site remediation requirements that have been agreed with regulatory authorities.

This section shall include any restrictions placed on the chemical content of materials to be used in the works i.e. what it is acceptable to leave on the site and what needs to be removed from site. This can be presented in terms of limits for U1A and U1B in accordance with Series 600 of the Specification.

6.3 Details of contaminated materials to be removed from site.

7.0 GROUND TREATMENT INCLUDING TREATMENT OF ANY UNDERGROUND VOIDS ETC.

8.0 SPECIFICATION APPENDICES

Details of parameters and amendments for the specification appendices completed in Annex 1 (Ref 15).

9.0 INSTRUMENTATION AND MONITORING

9.1 Full details of purpose, installation requirements, restrictions and frequency of readings

9.2 Use of Observational Methods/Controls. Predicted and critical readings and restrictions on work

9.3 Pile testing requirements
10 REFERENCES

ANNEX 1

Completed Specification Table 1/5 and series 500, 600 and 1600 appendices including tables 6/1, 6/2 and 6/3. (Ref 15)

ANNEX 2

Completed SEAFs
ANNEX 2 TO GEOTECHNICAL DESIGN REPORT: STRENGTHENED EARTHWORK APPRAISAL FORM ("SEAF")

Ref. No........

(Notes appended to explain the anticipated content of sections)

1. SCHEME DETAILS

1.1 Name of Scheme

1.2 Type of Highway

1.3 Permitted Traffic Speed

1.4 Nature of scheme/scheme element
   (eg new highway construction, highway widening, earthworks maintenance)

2. STRENGTHED EARTHWORK TYPE, PURPOSE AND LOCATION

2.1 Generic Type of Strengthened Earthwork
   (eg strengthened soil slope, gabions, strengthened soil, soil nailing, crib wall)

2.2 Purpose of Strengthened Earthwork
   (ie to allow highway widening, for earthworks failure reinstatement, for new construction in area of restricted land take etc).

2.3 Intended Location(s) for Use
   (a schedule of proposed lengths of strengthened earthworks and locations.)

3. OUTLINE OF EXISTING GROUND AND GROUNDWATER CONDITIONS

   (this section to refer to the relevant sections of the Geotechnical Design Report when available)

3.1 Ground Investigation Data
   (list report references and comment on extent of data)

3.2 Existing Ground Conditions
   (brief summary of natural soil sequence, presence of Made Ground etc)

3.3 Existing Groundwater Conditions
   (note on groundwater levels)

3.4 Soil and Groundwater Chemistry
   (note on sulfate/chloride/pH conditions and/or ground contamination and microbiological action)

3.5 Existing Geotechnical Problems and Risks
   (any factors of geotechnical significance related to the existing ground conditions, e.g. slope failures, solution features, mineworkings, slopes with marginal factors of safety, very soft/highly compressible soils etc)
4. **PROPOSED STRENGTHENED EARTHWORK**

4.1 Description of Strengthened Earthwork  
(\(\text{range of and average height of proposed strengthened earthwork in its final form, ie slope face angle, facing/landscaping details including where appropriate topsoil and planting details}\))

4.2 Foundation Preparation, including any Measures to deal with Geotechnical Problems  
(\(\text{foundation proposals for the strengthened earthwork, including any special measures or associated works to take account of any problems outlined in 3.5 above}\))

4.3 Materials to be used in Construction  
(\(\text{outline description of geosynthetics, soil nails, gabion baskets, imported fill materials etc., including Design Certificates and evidence of CE marking under the Construction Products Directive where appropriate}\))

4.4 Drainage Measures  
(\(\text{particular drainage control measures to be incorporated}\))

4.5 Arrangements for Highway Furniture and Buried Services and Landscaping  
(\(\text{relevant details}\))

4.6 Inspection and Maintenance  
(\(\text{particular inspection and maintenance requirements [including where appropriate the maintenance of vegetated slope faces], over and above routine observations}\))

4.7 Interface with Structures  
(\(\text{brief details of interface construction measures with bridges, abutments, retaining walls, buried structures, other Strengthened Earthworks etc}\))

5. **DESIGN METHODS**

5.1 Internal Stability  
(\(\text{the referenced design method/approach for determining stability of the strengthened earthwork itself}\))

5.2 External/Global Stability  
(\(\text{the referenced design method/approach for determining stability of any associated overall slopes which include the strengthened earthwork}\))

6. **DESIGN/ASSESSMENT CRITERIA**

6.1 List of Relevant Documents

6.2 Limit State Design Criteria  
(\(\text{factors of safety on limit state stability conditions to be applied in the design, on both stability of the strengthened earthwork itself and on overall stability of associated slopes}\))

6.3 Serviceability Design Criteria  
(\(\text{any total/differential settlement or other movement criteria adopted by the designer, including any imposed by Employer’s Requirements}\))

6.4 Design Parameters for Soils and Materials  
(\(\text{schedule of relevant main design parameters for the soils and other materials to be used in construction}\))
6.5 Design Groundwater Conditions
(statement of worst case, or range of piezometric conditions and/or ru values to be used in design)

6.6 Live Loadings
(confirmation of worst case live loadings to be assumed in design)

6.7 Description/Diagram of Idealised Soil Structure Model to be used in Analysis
(provide a section of the strengthened earthwork to illustrate the design method and associated main design assumptions)

6.8 Precautions against Chemical Attack to Materials
(measures to accommodate ground conditions set out in 3.4)

6.9 Proposed Departures from Design Standards
(departures from documents listed in 6.1)

7. CHECKING

(Designer to indicate the independent checking procedures to be employed)

8. DRAWINGS AND DOCUMENTS

8.1 List of drawings and documents accompanying submission

Appendix A Soils Information
(A list of the relevant trial hole logs and test results from the soils reports listed in para 3.1 and from any additional site investigation, extract from Geotechnical Report including the relevant parts of section 8 of the Geotechnical Report)

Appendix B Relevant Correspondence, Documents and Certificates from Consultation with Relevant Authorities.

Appendix C Drawings and documents.
9. **THE ABOVE DESIGN AND CONSTRUCTION PROPOSALS ARE SUBMITTED FOR REVIEW.**

Signed: ..........................................................................................
Geotechnical Team Leader, Design Team
Name: ..........................................................................................
Engineering Qualifications: ..........................................................
Date: .............................................................................................
On Behalf of .................................................................

Geotechnical Certificate Ref No.

*Signed: ..........................................................
*Contractor (Agent or Contracts Director)

*Name: ..........................................................
*Date: ..........................................................
*on behalf of .............................................................

10. **THE ABOVE SEAF IS:**

i: received*

ii: received with comments as follows*

iii: return marked “comments” as follows*

* delete as appropriate.

Signed: ..........................................................................................
Overseeing Organisation’s Geotechnical Advisor
Name: ..........................................................................................
Date: ..........................................................................................

*(Overseeing Organisation’s Geotechnical Advisor to confirm Geotechnical Certificate Reference no (where appropriate) and comments appended to that Certificate)*

Note:

‘RECEIVED’ = SUBMISSION ACCOMPANYING CERTIFICATE IS ACCEPTED.
‘RECEIVED WITH COMMENTS’ = SUBMISSION ACCOMPANYING CERTIFICATE GENERALLY ACCEPTABLE BUT REQUIRE MINOR AMENDMENT WHICH CAN BE ADDRESSED IN SUBSEQUENT REVISIONS.
‘RETURNED MARKED COMMENTS’ = SUBMISSION ACCOMPANYING CERTIFICATE UNACCEPTABLE AND SHOULD BE REVISED AND RESUBMITTED.
APPENDIX F  FORMAT FOR GEOTECHNICAL FEEDBACK REPORT

1.0 TITLE SHEET

Clearly indicating the name of the scheme together with the title (eg Geotechnical Feedback Report) and version and date of the report. The version number and date of the report shall be placed as a footer to every page of the report. For smaller schemes it may be appropriate to adopt a reduced scope for the Feedback Report. This should be discussed with the Overseeing Organisation prior to submission of the report.

2.0 CONTENTS

Contents of all volumes listed in the front of each volume with the contents of the particular volume highlighted.

3.0 INTRODUCTION

3.1 Scope and object of the report.
3.2 Limits of the area covered by the report.
3.3 Bibliography of scheme specific geotechnical reports
3.4 Other relevant information.

4.0 EARTHWORKS

4.1 General description of the earthworks.
4.2 Problems not envisaged in the Geotechnical Design Report and their solutions.
4.3 Weather conditions.
4.4 Application of acceptability criteria.
4.5 Haul conditions and types of plant used.
4.6 Comparison of predicted and actual quantities of acceptable and unacceptable material.
4.7 Topsoil and planting.
4.8 Details of any validation reports prepared to demonstrate compliance with the site remediation strategy and the requirements of the regulatory bodies.
5.0 CUTTINGS

5.1 For each cutting, location of materials excavated and their subsequent destination in the Works (with dates)* – see Note 1.

5.2 Plant used and details of problems encountered.

5.3 Instability problems and unusual ground conditions.

5.4 Ground water conditions and problems and drainage measures to overcome them.

5.5 Contaminated and hazardous material encountered on site and the location of disposal, both on and off site.

6.0 EMBANKMENTS

6.1 For each embankment, source and location of all material placed (with dates)* - See Note 1.

6.2 Plant used and details of problems encountered.

6.3 Instability problems and unusual ground conditions.

6.4 Foundation treatment, including drainage measures and treatment of soft areas.

6.5 Settlement of foundation and fill material.

7.0 SUBGRADE/CAPPING/PAVEMENT

7.1 Method of subgrade preparation, details of capping materials used and details of any problems encountered.

7.2 Method of placing each pavement layer and details of any problems.

8.0 DRAINAGE

8.1 Details of temporary drainage and its effectiveness.

8.2 Methods of installing permanent drainage and details of any problems encountered.

9.0 IMPORTED MATERIALS

9.1 Types of imported materials and their use.

9.2 Source of imported materials and their location in the Works (with dates)* - see Note 1.

9.3 Acceptability and performance.
10.0 STRENGTHENED EARTHWORKS

10.1. Description of Strengthened Earthworks types and locations.
10.2. Fill materials used.
10.3 Record of soils and groundwater conditions encountered and drainage measures required.
10.4 Inspection and maintenance requirements.
10.5 Details of any in situ testing.
10.6 Details of any problems encountered.

11.0 STRUCTURE FOUNDATIONS

11.1 Record of soil and ground water conditions encountered.
11.2 Temporary works required and their effectiveness.
11.3 Details of any problems encountered.
11.4 Pile logs summary, pile test results and other relevant information.
11.5 Settlement records with dates of each major stage including backfill of abutments and approach fills.
11.6 Details of as built foundations.

12.0 TESTING

12.1 Summary of site laboratory testing.
12.2 Separate section on each type of test giving a summary of all results together with comments on them and their effectiveness.  
   *(If a material report is prepared by the testing organisation then this should be used as the basis for this section with the actual report attached as an appendix to the Feedback Report)*

13.0 INSTRUMENTATION

13.1 Location and details of instruments.
13.2 Purpose, performance and usefulness.
13.3 Readings (with dates) and predicted values.
13.4 Details and effects of resulting action.
13.5 Comment on need to continue monitoring.
14.0 SUMMARY OF PROBLEMS EXPERIENCED AND DESIGN CHANGES

14.1 Summary of problems and details of design changes to overcome them.

14.2 Comments on how problems might be avoided in the future, including suggested revisions required to the SHW and DMRB.

15.0 RESIDUAL HEALTH AND SAFETY RISKS

Details of any residual Health and Safety risks on the project which would need to be considered if future work is carried out by the maintaining authority e.g. residual contamination, potential ground gas – Make reference to the Health and Safety File where appropriate.

NOTE 1 Items marked * (and others where possible) may be conveniently presented on longitudinal profiles and accompanying plans compiled as construction proceeds. Alternatively, electronic presentation of data may be appropriate.

NOTE 2 Photographs should be included in the report to illustrate particular points.
Dear Keith,

Thank you for your letter regarding the above. We confirm that we have received this, please could we request that should you have any further documents relating to the above application, could you send them to the below address marked for my attention so that they can be processed and actioned accordingly.

Many Thanks and Kind Regards

Clare

Clare Harvey
Administrative Officer
CRCE IPC Consultation Team / International Research & Development Group

Health Protection Agency
Centre for Radiation, Chemical and Environmental Hazards
Chilton, Didcot, Oxon, OX1 0RQ

Tel: +44 (0) 1235
Fax: +44 (0) 1235
Email: clare.harvey@hpa.org.uk
Dear Sirs,

Consultation on preliminary information related to an application to the Infrastructure Planning Commission for an Underground Gas Storage Facility at Presalls, Lancashire

An EIA scoping report has been prepared and, as a consultation body, the HPA is requested to provide comments to the Infrastructure Planning Commission (IPC) in cases where the applicant requests an opinion ("scoping opinion") from the IPC.

The HPA provided such a response to the IPC on 9<sup>th</sup> November 2010, outlining the information that the HPA considers should be provided in the environmental statement. Consultation bodies’ responses are subsequently made available to applicants via the IPC and the HPA notes that this information has been provided to Halite Energy (IPC scoping opinion issued November 2010).

At this stage of the process the HPA has no further comments in relation to the consultation on the preliminary information, but will respond as necessary to any specific questions regarding the chemical or radiation aspects of the application.

We note that this consultation request was sent to the HPA’s Cumbria and Lancashire Health Protection Unit. For future consultations related to this application, please contact the HPA via the IPC Consultations Coordination Team using the email address below.

Yours sincerely

Jim Stewart-Evans
Principal Environmental Public Health Scientist
CRCE_IPCConsultations@HPA.org.uk
From: "community@halite.net" <community@halite.net>
Subject: Fwd: FAQ: Keith Budinger - Preesall Underground Natural gas Facility
Date: 2 June 2011 11:06:00 GMT+01:00
To: Karen Archer <karen.archer@halite.net>

Begin forwarded message:

From: "CRCE IPC Consultations" <Strategicplanning@hpa.org.uk>
Date: 2 June 2011 11:04:02 GMT+01:00
To: <community@halite.net>
Cc: "CRCE IPC Consultations" <Strategicplanning@hpa.org.uk>
Subject: FAQ: Keith Budinger - Preesall Underground Natural gas Facility

Dear Keith,

Thank you for your letter dated 10 May, regarding your proposed application to the Infrastructure Planning Commision (IPC) for the above facility. We are currently in the process of drafting a response to you. We note that you sent your letter to your local Health Protection Unit, who have passed to ourselves as the CRCE IPC Consultation team to review and provide the response. Should you have any further information or future applications for IPC related enquiries please send either to the below address or email crce.ipcconsultations@hpa.org.uk.

We will be writing to you shortly in response to your request.

Many Thanks and Kind Regards

Clare Harvey
Administrative Officer
CRCE IPC Consultation Team / International Research & Development Group

Health Protection Agency
Centre for Radiation, Chemical and Environmental Hazards
Chilton, Didcot, Oxon, OX1 0RQ

Tel: +44 (0) 1235
Fax: +44 (0) 1235
Email: _______________________

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From: KESWA Not Affected Email Response
From: 14 April 2011 15:52:34 GMT+01:00
To: community@faile.net

Site Ref: N/A
Date: 14 April 2011

Dear Sir / Madam

Ref: Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to Construct and Operate an Underground Natural Gas Facility at Preesall, Lancashire

Thank you for your enquiry concerning apparatus in the vicinity of your proposed work.

GTC/ENC can confirm that we have no apparatus in the vicinity but please note that other Gas Transporters/Electricity Distributors may have and that you should ensure that all transporters/distributors have been consulted.

All future plant enquiries must contain accurate Easting and Northing references to enable us to process your enquiry efficiently.

Yours sincerely

Andrew Rulton
engineering Support Officer
GTC

Please be environmentally aware. Do you really need to print this copy?
Hi Bruce

Further to our telephone conversation this morning, I have received the email below but unfortunately it is missing the attachment. Can you arrange for it to be re-sent.

Kind regards

Graham Penlington
Fulcrum Pipelines

T: 01709
F: 0845
E: graham.penlington@fulcrum.co.uk
I: www.fulcrum.co.uk
For the attention of Mr Graham Penlington, Hi Graham, thank you for your time this morning. I have attached a copy of our Red Line Master Plan which shows the full extent of our application for a Development Consent Order. I hope this provides you with sufficient detail to determine whether the project will impact on your pipeline ownership.

Please let me know if you need any further information and if this is sufficient at this time please give us your feedback as soon as possible.

Regards
Bruce Gibson
Project Manager

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For the registered information on the UK operating companies within Fulcrum Group Holdings Limited please use the attached link:
http://www.fulcrum.co.uk/aboutus/Companystructure
We received a letter from Keith Budinger dated 22 June 2011 commenting that we had not responded to a communication from yourselves dated 4 April 2011. I have checked our records and have found we have received 3 previous requests concerning Preesall but none from yourselves. If you wish us to carry out a plant protection search for this site we will require from you a plan showing the extents of your area of interest.

Kind regards

Graham Penlington
Fulcrum Pipelines

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Begin forwarded message:

From: "Alan Slee"<
Date: 5 April 2011 13:01:48 GMT
To: <community@halite.net>
Subject: Halite Energy Group Limited, Underground Nat Gas Facility at Presall, Lancs

Dear Sirs,

**Section 42 Planning Act 2008 (Letters dated 4 April 2011)**

For the avoidance of doubt please note that further to your communication and its enclosures to E'S Pipelines Ltd, ESP Networks Ltd, ESP Pipelines Ltd, ESP Electricity Ltd and ESP Connections Ltd dated 4 April 2011 I can confirm that our businesses have no comments on the proposal at this stage.

Regards,

Alan Slee  
Operations Manager

DD 01372  
Mobile  01372 386203  
Fax 01372 386203  
www.espipelines.com

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Please consider the environment before printing this e-mail
Dear Sir/Madam

UNDERGROUND GAS STORAGE
PREESALL SALTFIELD, SALTMINE, WYRE ESTUARY, LANCASHIRE

Thank you for referring the above information for consultation. We have the following comments to make:

Waste Comments
The deposit of insoluble residues from the leaching process that are intended for disposal in Salt caverns Nos 118 - 123 will require an Environmental Permit for the deposit of wastes from the Environment Agency.

The disposal re/use of drilling materials on the site of production, and top soils rock/earth from building bases should be reviewed under the CL:AIRE 'Definition of waste : development industry code of practise.' This will require registering with the Environment Agency.

Operations
We concur with the receptors listed in Table 13-1, and any possible effects, and note that your proposals for dealing with the events, are stated in the PEI report on pages 15 & 16.

Biodiversity
Great Crested Newts: Previous consultation with Natural England has established that surveys should be carried out within 500 metres of the proposed works. The Environment Agency recommend full consultation with Natural England to determine whether the extent of surveys is sufficient. Where access to ponds was not possible, the presence of Great Crested Newts should be assumed.

Section 6.6.33-6.6.36 should provide enough information to allow the determining officer that the risks to Great Crested Newts have been fully considered and that adequate protection and mitigation can be achieved. Mitigation measures should include details of proposed habitat creation to mitigate for the loss of terrestrial habitat as outlined within Table 6.2 & 6.3. In addition, the proposals should provide further information with regard to impacts on the hydrology of the ponds and
measures to prevent negative impacts on Great Crested Newts.

Reason: Great Crested Newts are present within areas of works. The impact assessment has identified that the scheme could negatively impact on the species through construction works, hydrology changes and permanent loss of terrestrial habitat. There is not site specific details within the report that identify measures to prevent a negative impact on the populations.

Water voles: Updated surveys will be required through the full working area where impacts on water bodies including ditches and ponds will occur. Section 6.6.40-6.6.41 states that “surveys will only be required where works will be carried out during spring and summer”. The Environment Agency do not agree with this statement. Where works are carried out on any water body including during the winter months, updated water vole surveys will be required, surveys should be carried out using standard water vole methodology. Full exclusion and mitigation method statements will be required where water voles are found to be present.

Reason: The Environment Agency hold records of water voles through out the area of proposed works. There is a possibility for water voles to colonised water bodies to be impacted by the scheme. Least impact methods of working should be developed such as directional drilling where possible. Water voles and their habitat are protected under the Wildlife and Countryside Act 1981.

Flood Risk
No Flood Risk Assessment has been provided to comment on, however Nicola Bamber our Development and Flood Risk Officer is liaising with yourselves on that topic.

Would want to see justification as to why they cannot directional drill under sea wall? Why do you propose to open cut?

Pollution Control
It would appear that you have considered many of our concerns within the documents provided.

We would ask for clarification on the consents to discharge which are to be made use of. The applicant makes reference to a consent held by Canataxx Ltd. This consent, if to be used, must be transferred to Halite.

In addition: previous applications by Canataxx have referred to a number of outlets connected with ICI Brineworks (Consent 017290098) which were to be utilised. There is no reference in the documents provided on this occasion to this, so further details are requested.

It appears that the applicant has fully considered the potential environmental risks to controlled water during the construction phase of the project. They have made reference to a number of Method Statements which are to be agreed with the ourselves. We would ask that these method statements/proposals are discussed at the earliest opportunity with the Environment Management team.

Further Information
This site will be regulated under the Control of Major Accident Hazards 1999, and
will be classified as a top tier site under that legislation. It will be required to produce a safety report. The site will be jointly regulated by the Environment Agency and the HSE.

Yours faithfully

Amy Heys
Planning Liaison Technical Specialist

Direct dial 01768
Direct fax 01768
Direct e-mail penrith.planning@environment-agency.gov.uk
Dear Jenny,

Thank you for your email. We accept the previously agreed methodologies for borehole analysis and impact assessment.

Yours sincerely,

Christopher Pater
Marine Planning Unit
English Heritage

From: Jenny Wylie [mailto:Jennifer.Wylie@hyderconsulting.com]
Sent: 26 July 2011 15:19
To: PATER, Chris
Subject: RE: Marine assessment for proposed gas storage project near Fleetwood Lancs

I have been asked to contacted you again regarding the archaeological analysis and interpretation of
geotechnical core material along the proposed outfall pipe at Fleetwood. Back in June we discussed this work and can to an agreement that as no cores were being done at the site prior to the submission of the ES that we could submit our analysis after submission and the ES will include a detailed methodology of how this work will be undertaken.

However I have been forwarded a letter from you dated the 16th June which you submitted to the MMO in response to the PEI report where you outline the work you would like undertaken as part of the ES to support the application. I note that in that letter you refer to analysis of core material from boreholes. I am writing to check that you are still happy for us to proceed with our previously agreed methodology outlined above with relation to the boreholes?

In addition I would also appreciate it if you could indicate whether you are happy with our proposed impact assessment methodology? We intend to follow the methodology as outlined in DMRB (2007). We have already agreed this approach with Peter Iles at Lancashire County Council, but as a consultee on this project we would appreciate having your agreement on this as well.

Many thanks

Jenny

Jennifer Wylie
Senior Archaeologist
Hyder Consulting (UK) Limited
The Mill, Brimscombe Port, Stroud, Glos GL5 2QG

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From: PATER, Chris [mailto: ]
Sent: 07 June 2011 17:17
To: Jenny Wylie
Subject: RE: Marine assessment for proposed gas storage project near Fleetwood Lancs

Dear Jenny,

Thank you for your email in support of our recent telephone conversation. I therefore accept your explanation that archaeological analysis and interpretation of geotechnical core material will occur after submission of the Environmental Statement (ES), but as we agreed it is important that the ES describes in detail the methodology to be adopted to complete this aspect of the EIA.

Yours sincerely,

Chris

Christopher Pater
Marine Planning Unit
Dear Chris,

Following on from our conversation earlier today I can confirm that we are currently in the process of carrying out the marine archaeology assessment of the section of the site which is within the Irish Sea Study Area of the proposed Gas Storage Facility Project near Fleetwood as show on the attached plan. Wessex Archaeology will be carrying out the assessment and we shortly be commissioning a survey company to carry out the marine geophysical survey.

As I mentioned on the phone unfortunately it is unlikely that we are going to be able to include an assessment of marine geotechnical data as part of the ES as there is a borehole survey planned but it is highly likely that the information from that survey will not be available before our deadline for submitting the ES. Therefore as we discussed on the phone I would like to carry out the assessment of the boreholes after the submission of the ES. You requested on the phone that the ES includes a methodology of how the assessment would be carried out and we are happy to include that.

I would be very grateful if you could reply to me by return email to confirm you are happy with this approach.

Many thanks

Jenny

Jennifer Wylie
Senior Archaeologist
Hyder Consulting (UK) Limited
The Mill, Brimscombe Port, Stroud, Glos GL5 2QG

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From: STOPFORD, Jennie [mailto:
Sent: 04 July 2011 11:06
To: Jenny Wylie
Cc: Iles, Peter
Subject: RE: IPC re Underground Natural Gas Facility at Preesall, Lancs - PAA for logging

Dear Jenny,

Many thanks for addressing the points raised in my pre-app advice. I see that you are liaising closely with Peter Iles regarding this proposal and I write to confirm that you do not need to consult me further unless some unexpected problem arises.

With best wishes, Jennie

Dr Jennie Stopford
Inspector of Ancient Monuments for Cheshire, Lancashire and Merseyside
English Heritage, Canada House,
3 Chestlow Street, Manchester M1 5FW
Tel: 0161
Mobile: 07901 594105

From: Jenny Wylie [mailto:Jennifer.Wylie@hyderconsulting.com]
Sent: 04 July 2011 10:53
To: STOPFORD, Jennie
Subject: FW: IPC re Underground Natural Gas Facility at Preesall, Lancs - PAA for logging

Dear Ms Stopford,

A few weeks ago I was forwarded an email from you regarding the proposed gas storage facility project near Fleetwood in Lancs. The email was sent to me by Bruce Gibson at Halite as I am undertaking the cultural heritage assessment as part of the EIA to support the planning application. I have tried to contact you by phone a number of times to discuss the points you made in your email. Unfortunately every time I have rung you have either been out of the office or on leave. As it is now some weeks since your original email I thought it would be best to respond via email to assure you that we are dealing with your comments. I would like to reassure you that none of your comments covered areas that we had not considered to date and throughout this project we have been maintaining close contract with Peter Iles at Lancs CC regarding the approach to archaeology.

I would like to give a quick response to each of your points below, which I hope will demonstrate that we are
considering them carefully.

1. Our detailed and ongoing consultations with Peter Iles have covered the potential for archaeological remains to be present in the mosses and the desk-based assessment and ES will be drawing on a number of resources to outline this potential, such as Middleton et al, 1995, The Wetlands of North Lancashire and Peter has kindly sent me the data from the North West Wetlands Survey which relates to our study area.

2. We have agreed with Peter that in order to try to determine this potential we will be undertaking a geophysical survey, utilising a range of techniques across the application area including the mosses, prior to the submission of the ES. We have also agreed with Peter that whilst it is also desirable to place evaluation trenches in the mosses to further determine the archaeological potential of this sensitive area it is not possible to do this at this stage due to problems with obtaining access and permissions from landowners. We have therefore agreed with Peter that a programme of trial trenching will form part of a detailed mitigation strategy which will be outlined in the ES and implemented post-determination of the planning application.

3. We fully intend for the Es to include a detailed mitigation strategy as mentioned above and have already been in discussion with Peter regarding key elements this will include.

4. The archaeology element of the EIA is being dealt with by the Cultural Heritage team here at Hyder. For the fieldwork elements which we have agreed with Peter and for other more specialist elements of the project, such as a marine archaeology assessment, we have engaged specialist sub-contractors who will be carrying out the work and will be providing reports to be incorporated into the ES.

5. We have taken care to ensure that the developer is aware of risks associated with archaeology in relation to this project and have also passed on comments from Peter to them in relation to this subject.

We are currently at the stage where the WSI for the geophysical survey has been agreed by Peter and the survey will be getting underway this week. Last week a marine geophysical survey was undertaken along the route of the brine outfall pipe and once the results are available they will be provided to the specialist sub-contractor who is producing the marine assessment. In the meantime a WSI for the marine assessment is in production and will be provided to Christopher Pater for approval.

If you would like to discuss this further with me please do not hesitate to contact me either by phone or email. I shall be out of the office from the 11th to the 15th of July and unable to respond at that time.

Best Wishes

Jenny

Jennifer Wylie
Senior Archaeologist
Hyder Consulting (UK) Limited
The Mill, Brimscombe Port, Stroud, Glos GL5 2QG

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Mob: +44 ( )
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From: "STOPFORD, Jennie" <jennie.stopford@nationaltrust.org.uk>
Date: June 13, 2011 5:26:52 P.M. GMT
To: "bruce.gibson@halite.net" <bruce.gibson@halite.net>, "FLENLEY, Julie" <julie.flenley@halite.net>, "debbie.morris@halite.net" <debbie.morris@halite.net>, "Iles, Peter"

Subject: IPC re Underground Natural Gas Facility at Presall, Lancs - PAA for logging

Dear Bruce,
Thank you for consulting us on the above project proposal. I have now looked at the sections relevant to the historic environment and would make the following comments:

1. The archaeological assessment notes the potential destruction of unknown archaeology on the mosses and for the drying out and dessication of the peat as a result of development. However the report does not make clear that the potential for very significant archaeology on the mosses is relatively high. The lack of evidence to date for archaeology in these areas is largely a result of the lack of any previous development.

2. In view of this there needs to be the fullest possible archaeological assessment of the area in advance of determination. This will help the developer to ascertain the risks involved as well as informing the planning process.

3. Once a full assessment has been made, a detailed statement of the proposed subsequent investigation should be drawn up, together with the contingencies that will be put in place to try to avoid archaeological deposits. Full details should be set out of the proposed mitigation strategy should significant archaeology be encountered.

4. We strongly advise that a suitably qualified and competent archaeological team be put in place, with sufficient scale and resource to provide the necessary support to any discoveries.

5. The developer needs to be aware of the level of risk of significant archaeological discoveries and the potential costs of the necessary response.

Please get in touch with me if you have any queries or would like to discuss any of the above further.
With best wishes,
Jennie

Dr Jennie Stopford
Inspector of Ancient Monuments for Cheshire, Lancashire and Merseyside
English Heritage, Canada House,
3 Chepstow Street, Manchester M1 5FW
Tel: 0161
Mobile:

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From: "STOPFORD, Jennie" <jennie.stopford@cheshire.gov.uk>
Date: June 13, 2011 5:26:52 PM GMT+01:00
To: "bruce.gibson@halite.net" <bruce.gibson@halite.net>, "debbie.morris@halite.net" <debbie.morris@halite.net>, "Illes, Peter" <pille@halite.net>
Subject: IPC re underground natural gas facility at Preesall, Lancs - PAA for logging

Dear Bruce,

Thank you for consulting us on the above project proposal. I have now looked at the sections relevant to the historic environment and would make the following comments:

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Please get in touch with me if you have any queries or would like to discuss any of the above further.

With best wishes,
Jennie

Dr Jennie Stopford
Inspector of Ancient Monuments for Cheshire, Lancashire and Merseyside
English Heritage, Canada House,
3 Chester Street, Manchester M1 5FW
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Our Ref: M012.A.01 CJB Vol 66

Mr Keith Budinger
Chief Executive
Halite Energy
Unit 5 – St Georges Court
St Georges Park
Kirkham
Preston
Lancashire
PR4 2EF

27 July 2011

Dear Mr Budinger

RE: Consultation on proposed application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire

Thank you for your letter of 25 July 2011 addressed to EDF Energy (IDNO) Limited at 40 Grosvenor Place, London.

The electricity networks business division of EDF Energy (comprising its distribution licence holders and the unregulated networks business) was sold on 29 October 2010. EDF Energy (IDNO) Limited is now called UK Power Networks (IDNO) Limited.

UK Power Networks (IDNO) Limited does not currently operate in Lancashire and therefore has no comment to make.

Yours sincerely

N. Zentner

Deputy Company Solicitor - Commercial
UK Power Networks
Attention: Keith Budinger

Reference is made to your correspondence dated 4th April 2011 regarding the application made for the above mentioned proposal.

I can advise that, in this instance and based upon the information submitted, The Crown Estate has no comments on the proposal.

Should you have any queries or require any additional information with regard to this matter, please do not hesitate to contact me on 0207 851 5248.

Kind regards,
Susan

Susan Kidd
Policy and Planning Advisor
THE CROWN ESTATE

The Crown Estate
10 New Burlington Place
London W1S 3HX
Tel: 0300
Fax: 020

Email: 

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The Crown Estate's head office is at 10 New Burlington Place, London W1S 3HX.
23 August 2011

Mr K Budinger
Halite Energy Group
Unit 5
St Georges Court
St Georges Park
Kirkham
Lancashire
PR4 2EF

Dear Mr Budinger

Proposed Underground Natural Gas Storage Facility at Preesall, Lancashire
Consultation on Proposed Application to the Infrastructure Planning Commission

Thank you for your letter dated 22 July 2011 in respect of the above.

British Waterways (BW) is a public body set up to maintain and develop the network of canals and other inland waterways in a sustainable manner so that they fulfil their full economic, social and environmental potential. In addition to statutory navigation and safety functions, British Waterways has to:

- Conserve our waterway heritage and environment;
- Promote and enable rural and urban regeneration;
- Maintain and enhance leisure, recreation, tourism and education opportunities for the general public; and
- Facilitate waterway transport.

On the basis of the plans provided at this stage is appears that the proposed development is unlikely to have a direct impact on the Lancaster Canal. However, the eastern end of the proposed gas pipeline will connect to an existing pipeline that passes under the canal and will presumably significantly increase the flow of gas through this pipeline.

British Waterways would therefore like to be kept informed as the proposal progresses, particularly if the exact location of the connection to the existing pipeline is subject to change. British Waterways would also be grateful for information in respect of the means of emergency isolation of the existing pipeline at the point where it crosses the canal.

I trust these comments are of assistance and look forward to commenting further on behalf of British Waterways as the scheme progresses.
Yours sincerely

Alison Truman

Area Planner (North West & North Wales)
Telephone:
E-Mail: planning@britishwaterways.co.uk
6th June 2011

Mr I McManus
Assistant Director of Facilities
Blackpool Teaching Hospitals NHS Foundation Trust
Victoria Hospital
Whinney Heys Road
Blackpool
Lancashire
FY3 8NR

Dear Mr McManus

Thank you for your letter dated 2nd May 2011. We quite understand your concerns around noise, vibration, dust and odour and hope that you will find the following response helpful.

A full Environmental Statement will be submitted to the Infrastructure Planning Commission when we make our application for a Development Consent Order. Included in the statement would be the findings of detailed assessments and work carried out in order to mitigate the impact of our proposed Underground Natural Gas Storage Facility in regard to the areas mentioned in your letter which I will detail below.

Noise and Vibration
A comprehensive noise and vibration assessment, which will be carried out in accordance with British Standard (BS) 5528 and as agreed with the Environmental Health team at Wyre Borough Council, will consider the construction, operational and decommissioning impacts of the Project. In regards to construction, the assessment will consider the machinery and equipment required to develop the facility and the movement of construction vehicles during this phase. Following the identification of the predicted noise and vibration impacts appropriate mitigation measures will be designed. These typically include considering the use of alternative construction methods, the selection of quieter and less intrusive machinery and the use of acoustic screening. A similar approach will be undertaken to predict the decommissioning impacts.
The operational noise and vibration assessment will be carried out in accordance with BS 4142. Mitigation measures would ensure that noise levels at the façade of the hospital building would not compromise internal noise levels. Vibration levels would be mitigated to ensure that there is no impact on your patients and any sensitive equipment used within the hospital. I can also reassure you that the noise and vibration assessment will take into consideration the recommendations in Health Technical Memoranda (HTM) for the design of hospitals and clinics, HTM 08-01: Acoustics.

**Dust**

It is likely that dust mitigation measures would be required during the construction phase of our proposed Project. These would be incorporated into the Construction Environmental Management Plan, which will be submitted to the IPC as part of application, and derived from ‘The Control of Dust from Construction and Demolition Activities’ guidance (BRE, 2003) and the 2006 Greater London Authority Best Practice Guidance entitled ‘The Control of Dust and Emissions from Construction and Demolition which detail measure to control dust for numerous construction activities.

**Odour**

Potential odour sources will be identified and assessed and, if required, an Odour Management Plan would provide details of how we would minimise any odorous releases created by our proposed Project. Any abatement and mitigation measures in respect of odour will include a suitable maintenance schedule to ensure all machinery operates efficiently along with suitable soil stack design to ensure adequate dispersion of odour emissions. Throughout the operational life of the Project odour impacts would be continuously monitored and addressed.

If you would like any further information on the areas covered in this letter, or on any other aspect of our proposals please do not hesitate to get in touch. We will be keeping the local community and consultees up to date with our application as it moves forward and note your request for information.

Yours sincerely

Keith Budinger  
Chief Executive  
Halite Energy
Date: 2nd May 2011
Ref: IM/CH/11/01

Halite Energy Group
(Preesall Underground Gas Storage Facility)
Freepost RSRC-UETY-CHSU
Unit 5, St Georges Court, St Georges Park,
Kirkham, Lancs
PR4 2EF

Your Ref: -

Re: Proposed Preesall Saltfield Underground Works Gas Storage Facility

Dear Sir / Madam,

Further to your written correspondence regarding the proposed application from Halite Energy Group, I wish to raise concerns about the proposed works due to its close proximity to Rossall Hospital.

Rossall Hospital is part of Blackpool Fylde & Wyre Hospitals NHS Foundation Trust, situated by the sea front at Fleetwood and accommodates rehabilitation patients. Due to the nature of the services provided at this unit it is imperative that access is maintained at all times and that noise, vibration, dust and odour are kept to a minimum.

To this end may I kindly request that the Trust are kept continuously informed of any environmental impact assessment associated with the proposed building development in particular how it will be planned, programmed and executed. Furthermore, we would welcome any information on the measures you are going to implement to maintain access and keep noise vibration, dust and odour levels to a minimum.

Yours sincerely

Ian McManus
Assistant Director of Facilities

CC: Eric Wright Construction
Date: 26th January 2011

Mrs. M.J. Harden,  
Clerk to the Council (Nether Wyresdale),

Dear Mrs. Harden,

Thank you for making contact with Debbie Morris yesterday regarding the date of your next Nether Wyresdale Council Meeting, which will be taking place on 17th March. We will await your comments from that meeting.

If I can be of any assistance in the meantime, please do not hesitate to contact me.

Yours sincerely,

[Signature]

Bruce Gibson  
Senior Project Officer.
Date: 24th January 2011

Mrs. M.J. Harden,
Clerk to the Council,

Dear Mrs. Harden,

Many thanks for your recent correspondence sharing your views regarding Halite Energy’s plans to create an Underground Gas Storage facility at Preesall.

Full details of our proposals, including drawings, maps, environmental, geological and safety information will be publicly available when we enter our formal consultation phase in the coming months. We will be writing to you again to inform you of this and will send a copy of our approved Statement of Community Consultation for your information at this time.

I would like to assure you that Halite takes the process of community consultation very seriously and that gathering and responding to the views of the local community is central to our work. As part of our consultation we will be holding a series of public exhibitions across the local area where all members of the community will have the opportunity to talk to experts, consider the detailed plans and give us their feedback. We would welcome the opportunity to discuss your concerns at these events.

Thank you again for your correspondence.

Yours sincerely,

Bruce Gibson
Senior Project Officer.
MESSAGE FOR DEBBIE MORRIS

Melanie Harbon, Parish Clerk called (tel: 01253-790156). They had the Winmarleigh meeting last night and no comments were made.
Dear Debbie,

Further to our conversation some weeks ago, I am in receipt of the latest paperwork and would like to report the following:

Winmarleigh parish council
The area related to on the map does not fall within the parish and there are no other comments.

Nether Wyresdale parish council
The area related to on the map does not fall within the parish and I have received feedback from the original paperwork you sent, (if you remember it was discussed at the March meeting as there was no quorum at January’s meeting). The parish council support the proposal but would not like something similar within the parish boundary. If I receive any more feedback, I will let you know.

Melanie
11th July 2011

Mr P Swarbrick  
Clerk and Responsible Financial Officer  
Stalmine-with-Steynall Parish Council

Dear Mr Swarbrick

Thank you for your letter of 25 May and apologies for the delay in responding to you.

Your feedback and comments are very important to us and I trust this letter will provide clarity on the issues you have raised.

Geology

The geology of the Preesall saltfield has been studied by the British Geological Survey, the foremost authority on geology in the country with a global reputation. They produced many detailed reports and also prepared a three-dimensional model of the salt body in the area of the proposed Project. The survey for this application has been more extensive than other surveys for similar applications in the same strata sequence.

Since the last Planning Inquiry further data has been obtained, this includes:

- Drilling at an angle at Burrows March (Barnaby Sands) borehole in order to obtain information from beneath Barnaby Sands
- Drilling the Hay Nook borehole and undertaking insitu pressure and permeability testing in three zones within the Hay Nook borehole
- Thermal property testing of the Hay Nook core
- 14 British Geological Survey reports
- Five geophysical survey lines of the dry mine area
- Sonar surveys of brinewells 44-47, 49-51, 78, 98, 102 and MW6
- Hooking and dipping data
- Additional borehole data of the surrounding area made available by the British Geological Society through its website
- Improved fault definition through reinterpretation of geology using analysis of dip magnitude and dip direction.
Burn Naze Fault

As part of the extensive geological review undertaken by Halite, the location of faults data has been re-interpreted. The Burn Naze fault has been interpreted on the basis of boreholes and seismic sections. A precautionary approach was taken by placing the fault as far to the east as the data would substantiate. By doing this, the safe areas for locating caverns are smaller and therefore a conservative assessment. All projects rely on the interpolation of data between survey points. Should permission be granted then further information on the geology beneath the River Wyre will be obtained. A balance has to be struck between the need to obtain further data and the impacts of drilling holes through the salt. No cavern will be allowed to operate unless the salt position and quality can be demonstrated to the regulatory authorities.

Presentation

I am sorry that you did not feel that my presentation clarified the geological work, however a slide was shown which demonstrated the location of the proposed caverns and the major faults, the separation of the fault and the caverns being based on the three-dimensional shape of the fault and the appropriate generic buffer zones. If you would like to meet to discuss the geology in further detail then please do not hesitate to contact me.

Legacy

The legacy of the ICI salt abstraction is undoubtedly well known by those who live in close proximity and have observed over the years subsidence associated with the old workings. There is also the strong probability that further deterioration of some brinewells will lead to further surface subsidence. However, it is not intended to store gas within these old workings and the proposed new caverns will be located a safe distance away from the old workings. The proposed locations will require the approval of the IPC and the HSE.

The legacy of extensive workings which appear not to have been designed, operated or decommissioned to any particular standards, being amongst the first examples of salt abstraction on a commercial scale, is likely to lead to further significant surface subsidence. Such subsidence is directly above the abandoned brinewells and would have no impact on the proposed caverns.

Safety and History

Many of the caverns along the western perimeter of the old brinefield have been sonar surveyed. A few have not because of problems accessing them and for these the largest diameter of 100 metres has been assumed. Halite has a programme for maintaining the old brinewells and further surveys could be undertaken to confirm the cavern dimensions.
The proposed caverns are well away from the old workings; however, a limited length of road and the interconnector pipeline pass close to the existing brinewell field. The route has been carefully considered and routed to avoid the caverns with marl roofs which are known to be the caverns which have less stable roofs. Monitoring of the old wells will continue.

Subsidence from old workings occurs where abstraction was uncontrolled and no salt was left in place and weak marl formed the roof, the mechanism for collapse observed over old brinewells being the upward migration of the marl roof. No infrastructure is planned within influencing distance of brinewells with marl roofs. Caverns formed in salt and filled with brine have been shown to maintain a constant shape. Groundwater circulation does not occur within the mudstone or the salt so will not introduce fresh water at depth.

**Cavern 45 Incident**

The recent events at Cavern 45 are being investigated in detail and within a short period data will be available to enable an interpretation of the causes of the incident. When this data has been assessed we will review our proposals to ascertain if any changes need to be made.

**Emergency planning**

Initial meetings have been held with Lancashire Reliance Forum which consists of all the emergency services and the emergency planning departments of the county and borough councils.

Following the consultation Halite has made a decision to construct a second access road and further meetings will take place in August with Lancashire Fire and Rescue to decide on which one of several alternatives is appropriate.

The Lancashire Resilience Forum will only enter more detailed discussions once we have an approved Project.

**Environment and landscape**

**Construction noise and traffic**

The construction noise assessment will consider noise and vibration impacts from construction vehicles travelling to and from the site. Construction works will take place in various locations and construction traffic will therefore travel along different routes. The construction traffic noise and vibration impacts will be assessed in accordance with accepted standards and guidance, as agreed with Wyre Borough Council. A Traffic Assessment is currently being carried out to indicate vehicle routes, vehicle volumes and working hours. This information will be used to predict the noise and vibration impacts from construction vehicles. Due consideration will be given to sensitive receptor locations along access routes to the site. Appropriate mitigation measures will be recommended once the scale of the noise and vibration impacts have been established.
Electricity route

The preferred route for the 132kV dual circuit, as indicated on drawing A-9000-001-A1, is from Stanah to the substation adjacent to the Gas Compressor Compound (GCC) following a route across land in the ownership by both Halite Energy Group and Preesall Energy Services. This would be an underground circuit, out of sight, but safely under the control of the site owner. The option to run these cables on the west bank of the Wyre has been considered but none of this land is in Halite’s ownership. Also, there may be contaminated land issues along part of the route and the overall length is approximately 1 km longer than the preferred east bank route.

The installation of the dual circuits would be a temporary disturbance. The cables would be laid in four sections between splice pits. It is estimated that installation would take three months to complete from the point where the cables are jointed at the south river crossing temporary compound on the east bank to the substation adjacent to the GCC. Each cable trench would be approximately 1 metre wide, backfilled and restored to its former surface condition. Watercourses would be crossed by directional drilling.

The effect of the proposed Project on the local habitat will be assessed within the Environmental Impact Assessment. No ponds will be removed and a programme of mitigation will be agreed with Natural England and other relevant bodies for potential disturbance of great crested newts. Cable installation would take place outside the breeding bird season and pre-construction inspection would be carried out to ensure that appropriate mitigation is in place.

The cables would be armoured and only jointed at the splice pits. Subsidence is monitored across the site and is therefore not considered to be an issue.

The route chosen is not anticipated to have any significant environmental impact but this will be determined through the environmental impact assessment process which is currently taking place. The results of the environmental impact assessment will be reported in the Environmental Statement for the Project which would be submitted to the IPC with the Development Consent Order application.

Impact on environment

It is true that routing a pipeline through peat will encounter technical difficulties in addition to those encountered in firmer ground. However, there are many examples of pipelines through peat soils. Additional construction measures are usually incorporated within the design to cope with the actual conditions anticipated. This is normal engineering practice.
Human rights

The IPC process allows all concerns of residents and key stakeholders such as Parish Councils to be raised and assessed by the IPC as part of the decision making process. An extensive consultation exercise has been undertaken which includes information on safety and geology. The IPC Examination will allow further opportunity for your concerns to be expressed to the IPC. We therefore do not consider there is any failure to comply with human rights requirements.

Traffic

A Traffic Assessment is being undertaken which will result in the preparation of construction and operational phase traffic plans. In addition, a Construction Environmental Management Plan would be prepared. These documents would be used, amongst other things, to manage traffic routing, timing, minimise noise levels and air pollution. The level of traffic associated with the Project is currently being determined and will be reported in the Environmental Statement for the Project which, as stated above, would be submitted to the IPC with the Development Consent Order application.

I hope the above information allays some of your concerns and answers the specific questions you raised. We confirm we are willing to continue a dialogue with you if you wish to discuss your concerns further.

Yours sincerely

Keith Budinger
Chief Executive
Halite Energy
Dear Mr Budinger

Halite Energy Group Ltd, Consultation on proposed application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an underground natural gas storage facility at Pressall, Lancashire.

Thank you for your letter of 4 April and for your presentation at our May Council meeting.

Stalmine-with-Staynall Parish Council has several observations to make on your company's proposal. These relate to geology, safety, the site history, environment and landscape, and human rights.

Geology

The Parish Council is not convinced that enough survey work has been done to discover the nature of the geology in the proposed development area. The lack of comprehensive survey from the developer information was highlighted at the last public inquiry and nothing has changed. There is still much unknown about the conditions under the River Wyre and the extent and nature of the Burn Naze fault beneath the western bank. Your presentation did not make it clear that some of the storage caverns may be under the river alongside the fault. This is cause for concern.

Local residents have known about subsidence of the old salt workings and bore holes for many years. Further cavern collapses are expected. Putting new caverns anywhere near old caverns and mine workings causes alarm for many residents. Your assurances about the safety of the proposed operation do not meet with residents' visual observations and perceptions of the area.

Safety and Site History

More work needs to be done to map the old wells and mine workings to ensure the safety zone planning for the development does not impinge on any former extraction works.

Any roadworks, buildings and pipelines need to be routed well away from old workings. Members of the Parish Council are not clear on whether you have enough data on old working to produce a safe effective plan. Development of above-ground facilities at Higher Lickow Farm would be folly as this area is at high risk of collapse.

Subsidence because of old workings is a fact. There will be new episodes of subsidence as more old wells and workings coalesce as a result of underground erosion leading to larger, joined caverns with roofs that cannot be supported.

Emergency planning is superficial. With only one road providing access to the site, emergency vehicles might be hampered if this road is in the downwind flume of any discharge. Members would like to have seen more evidence of risk assessments and emergency plans, following an all hazards approach, being worked up with Lancashire County Council's emergency planners.
Environment and landscape

The initial construction of the facility will create an unacceptable volume of heavy traffic causing noise and vibration nuisance. There are many buildings in the area with eighteenth and nineteenth-century foundations. Members feel there is a need to assess buildings on the route as a precaution against claims for arising from damage caused by excessive vibrations from heavy vehicles. There should be a limit on the working hours of vehicles entering and leaving the site avoiding peak traffic during the school run for the various primary and secondary schools in the area.

The plan features two river crossings. A lesser impact on the environment could have been achieved if the southern (electricity) route could have been amalgamated with the northern crossing (brine discharge) and the electricity supply being taken southwards on the east side of the Fleetwood peninsula.

Members have concerns about the feed to Nateby going across moss land. Ground movement in the moss land area must not be underestimated and a better route for the pipe would have been to the south.

Human Rights

Residents in the area have a right to live their lives free of fear. The main objection from residents is that this proposed development is not safe because of the underlying geology. Until more evidence is provided that the proposal is safe then this fear will remain.

Residents have a right to quiet enjoyment of their environment. Traffic from this development will be disruptive in noise, volume, vibration, unnecessary delays and local air pollution from vehicles.

Conclusion

Members think you still have a lot of work to do to show this development is safe, free from risk and beneficial to the area.

Yours sincerely

[Signature]

Peter Swarbrick
Clerk and Responsible Financial Officer

Mr K Budinger
Chief Executive
Halite Energy Group
Unit 5 St George’s Court
St Georges Park
Kirkham
Preston
PR4 2EF
Hello
I have taken the information to the Parish Council, unfortunately, the Councillors have serious concerns over safety and the environmental and ecological impact of the gas storage. They object to the proposal at this stage.

Thank you
Gill Mason
Clerk
8th June 2011

Mr L Marr
Clerk to Preesall Town Council

Dear Mr Marr

Thank you for the response from the members of Preesall Town Council on our proposed plans to create an Underground Natural Gas Storage facility. I appreciate the time and consideration that you have given to these proposals.

I hope that the following information provides some clarity on the points raised and would be very happy to meet with council members to further discuss our plans should you wish.

I will start by addressing the concerns raised in relation to the geology of our site. Extensive testing has been carried out in order to determine the suitability of the salt field at Preesall. This work has indentified two locations on which our proposed Project has been developed, away from existing caverns, historical workings and faults. Testing carried out both in the ground and in the laboratory by our geological experts has proved that the salt, the mudstone interbeds and the mudstone caprock have very low permeability along with high facture breakdown points which are well in excess of those required for the storage pressure we are proposing.

The collapsed salt mines you refer to were situated within the most shallow region of that used for mining and within an area which was subject to forced brining which is no longer allowed. It was the combination of the shallow stress relief and the brine operations which brought about the collapse. In contrast, our proposed gas storage caverns would be situated at a much greater depth and within hazard free areas where the salt has been proven to be suitable.
We have heard a word-of-mouth account of an explosion at the old mine working which was said to have occurred in an old mine well. The account described how the wellhead was being re-opened by workmen when there was an incident which resulted in a fatality. Our geological consultants have carried out extensive searches during their careful review of the geology of this area and have not found any record of this incident. It is conceivable that, in the course of the mine becoming flooded, a pocket of air was compressed in the old working which was then released by a worker. We are very cautious in this regard as we proceed with our maintenance at the existing mine and wells and include in our planning the possibility of significant stored energy, in the form of brine pressure or compressed air, as a potential hazard. However, we do not believe that there is a plausible risk of an explosion from a brine or mine wellhead.

As mentioned above, we have a very detailed geological picture of our site and all existing caverns and faults have been identified by our geology team. This has enabled us to locate our proposed caverns in areas that allow for a ‘safety buffer’ away from any faults in accordance with international guidelines on the development of salt caverns for gas storage. If for any reason faults were to be reactivated, the siting of our caverns would mean that the safe operation of the facility would not be impeded.

Concerns around the impact of earthquakes on our proposed Project have been raised during our consultation. The recent earthquake at Poulton was both within a typical magnitude and frequency expected in the area and would not have an impact at the depths at which we would be developing caverns. In addition, the British Geological Survey state that no fault reactivation due to earthquakes has occurred within the UK within the last 10 million years. Nevertheless, whilst it is not a requirement at this time, we have commissioned a seismic study in order to reassure the community that the caverns and the above ground infrastructure can be designed in order to meet the required standard.

I would like assure you that we are committed to minimising the environmental impact of our proposed Project and, if our application to the Infrastructure Planning Commission (IPC) for a Development Consent Order is successful, will work closely with all relevant bodies to ensure this is the case for the duration of the Project.

Discharging brine waste water into the sea is a common world-wide practice when creating Underground Natural Gas Storage facilities. After being treated in a de-bining facility where insolubles and any dissolved gas will be removed, the waste brine will be returned to the sea via an outfall approximately 2.3 kilometres offshore. The Environment Agency has already granted a consent to discharge the brine that will be generated into the Irish Sea. To give you some more detail the following are the specified standards with which we would have to comply:

- The plume concentration (discharge area) should not exceed 40 parts per thousand salinity at 50 metres from the discharge site
- The salinity should not exceed 10% over ambient at 500 metres from the discharge
- The plume should not impact upon the local shoreline or upon Morecambe Bay
We have undertaken a substantial amount of work in order to understand the offshore environment and potential impacts of the proposed brine discharge activity, including surveys of marine life and computer modelling. The results of the modelling show that:

- The plume concentration of 40 parts per thousand would be achieved at 50 metres from the discharge with the possible exception of one to two hours at low water slack on spring tides where it would reach 40 parts per thousand at 60 metres. However, the cavern creation process is unlikely to produce the theoretical peak concentration used in the modelling and the washing process could be managed to avoid this situation.
- A salinity of 10% of ambient salinity can be achieved within 250 metres of the discharge outfall.
- The impact of the activity on the shoreline and Morecambe Bay are judged to be negligible and within the normal spatial and temporal variations in the area.

We would use a filter to minimise the chance for small marine organisms to be taken from the sea into the cavern washing process.

For further details on this topic might I refer you to the Preliminary Environmental Information Report which is available to download from our website.

In relation to your concerns about flooding, all critical infrastructure required for the operation of the Project, with the exception of the existing Stanah substation, is located within a Flood Zone One with a low probability of flooding. There is infrastructure, such as the proposed wellheads, that would be located within a Flood Zone Three which has a high probability of flooding. However, the majority of these facilities are able to accommodate floodwater and are also located behind existing defences. In advance of our application to the IPC we intend to carry out further detailed flood studies in order to accurately assess the flood risk and identify and detail mitigation measures for the facilities located in Zone Three which cannot accommodate floodwater. These include the proposed main access road and the Stanah substation.

The salt body identified as suitable for the underground storage of natural gas is partially located beneath a Site of Special Scientific Interest (SSSI). However, the SSSI would not be affected by our proposed Project as the salt and caverns would be accessed from wellheads located outside the area. We are currently undertaking further ecological surveys to update previous surveys undertaken and the scope of this work has been agreed with relevant nature conservation bodies. I can assure you that mitigation measures would be implemented to offset any potentially negative effects of our proposed Project on important and protected species and a detailed Landscape and Ecological Management will be prepared. Our plans also include enhancing the existing ecology and landscape of our site.
In respect of HGV movement, construction traffic would access the site via the proposed new access and heavy haul road which would run from the A585 in Preesall Park through open agricultural land to the proposed site entrance through a security gatehouse. Construction traffic would be effectively managed and would not be able to use other local roads such as Staynall Lane or Carr End Lane. More work is now being conducted on traffic movements and details of proposed impact mitigation measures will be contained in the Environmental Statement which will be submitted to the IPC. If successful in our application, an agreed Construction Environmental Management plan would be implemented which will ensure that the utmost importance is placed on protecting the environment and the local community from the impact of construction works.

In relation to the concern express about the position of the Gas Compressor Compound I would need some detail from you in order to accurately address the query. In response to our Environmental Impact Assessment Scoping Report the Environment Agency did not raise any concerns regarding the Gas Compressor Compound location in relation to the Shoreline Management Plan. An initial Flood Risk Assessment has been undertaken to ensure the Gas Compressor Compound is suitably sited (as detailed above).

In terms of concerns raised about hazardous substances I should point out that neither the Health and Safety Executive or the Hazardous Substances Authority advised against the previous proposals for an underground natural gas storage facility promoted by Canatxx in 2009. It is true, however, that Lancashire County Council refused to grant approval for Hazardous Substances sitting insufficient geological proof of the site as suitable for the underground storage of gas and lack of a risk assessment as reasons for this decision. As already highlighted, a thorough and extensive review of the geology of the local area has been carried out along with a quantitative risk assessment (QRA).

I can assure you that safety is paramount to Halite and we are committed to developing a safe and secure Project. The key findings of our QRA show that the risk of a fatality to the public from above ground equipment is less than one in 100 million per year and from below ground infrastructure, which includes storage caverns and pipelines, is one in 120 million per year. The work carried out demonstrates that there is no risk of gas leaking from the caverns to outlying villages and therefore we cannot envisage a scenario that would require evacuation.

I hope this letter has answered the queries of council members but please don’t hesitate to contact me with further comments and questions as they arise.

Yours sincerely

Keith Budinger
Chief Executive
Halite Energy
From: "Lionel Marr" < >
Date: 16 May 2011 15:02:33 GMT+01:00
To: <community@halite.net>
Subject: Consultation on Proposed Application to the IPC for a development Consent Order etc.

Sirs,

Your letter dated 4th april 2011 refers.
The Council met recently to discuss your consultation paper, and here are their comments.
Some Councillors will reply on the down loaded questionnaire themselves as well as these comments.
The geology of the ground not suitable for this development, possible earthquakes- subsidence, local knowledge strong feelings against against the stability of the ground.
1) Queried the desk top studies, concern of the environment of the sea bed, fisheries and the control
of the levels of salt discharge into the sea, and the impact on wild life in Morecambe Bay. What tests have been carried out?
2) Geology of the rock salt to withstand the development and the effect on peoples human rights. Original salt mines were stopped due to flooding and half of them collapsed.
3) Most dangerous to store a potentially hazardous substance in proven unsuitable geographical infrastructure.
4) Safety of dense population to the west of the river.
5) Zone 3 flood risk area, evacuation of residents in case of an explosion, emergency plans?
6) Triple SI area and wild life.
7) HGV movements on rural roads.
8) There was an explosion in the old mine some time ago, therefore the ground is still unsuitable for this type of development, there has been subsidence in the old mine field area.
9) There is a geographical fault in the area.
10) Concern over the the safety of the area following the earth tremors in April 2009 in the Ulverston area of Cumbria, shock waves were felt in Poulton le Fyde, also the recent earthquake in Poulton. What seismic tests have been carried out, have these been fully investigated?
11) An application for Hazardous Substances was also rejected by the Council on the grounds of dangerous substances.
12) Concern was expressed of the position of the Gas compressor Compound - Shoreline Management Plan by the Environment Agency.

Lionel Marr Clerk to Preesall Town Council.
16th May 2011.
From: "Lionel Marr"
Date: January 11, 2011 11:07:24 AM GMT
To: <bruno.gibson@hajjo.net>
Subject: Proposed Underground Gas Storage Facility - Preesall.

Good morning Bruce and Happy New Year.

Your letter dated 26th November 2010 refers.

At last night’s Council meeting members gave their comments on the proposal. I have listed below their concerns.

1) Large amount of gas storage in salt caverns near to habitation.
2) Planning history - lapse in providing more information.
3) Reduction by 1/3 disrespectful to residents un prepared to define information, possible decision by incorrect information.
4) Water washing of the new cavens, lack of water and siting problems exasperated due to the withdraw of the Stena Line, therefore the reduction of dredging will increase sitting in the fish dock.
5) Reducing the site but not the stability of the ground.
6) What gas are they going to use to test the wells with, no information given about this.
7) possible constraints with the possible proposed barrage at the mouth of the river Wyre in weakening the ground.
8) More brine into Morecambe Bay detriment to the environment.
9) All information provided is based on computer predictions of the brine levels.
10) Local infrastructure not suitable.
11) Possible expansion hidden in the small print.
12) Road infrastructure will not be suitable.
13) Plenty of disruption in the future.

I was also asked to remind you of the Council’s objections to the previous applications by Canator, again I have listed those objections below.

1) Geology of the rock salt to withstand the development and the effect on peoples human rights.
2) Most dangerous to store a potentially hazardous substance in proven unsuitable geographical infrastructure.
3) Safety of cymac population on both sides of the river Wyre.
4) Eruption of residents in case of an explosion, emergency plans?
5) Salt brine and wild life.
6) HGV movements on rural roads.
7) There was an explosion in the old mine some time ago, therefore the ground is still unsuitable for this type of development, there has also been subsidence in the old mine field.
8) There is a geographical fault in the area.
9) Concern was expressed over the safety of the area following the earth tremor in April 2009 in the Ulverston area of Cumbria, shock waves were felt in Preesall and Fleetwood areas.
10) An application for Hazardous substance was also rejected by the Council on the grounds of dangerous substances.

No doubt when you have noted this report, you will let me have your comments in the near future.

Yours sincerely,

Lionel Marr.
Clerk to Preesall Town Council.
Date: 24th January 2011

Ms. G. Benson,
Clerk to the Parish Council,

Dear Ms. Benson,

Many thanks for your recent correspondence sharing your views regarding Halite Energy's plans to create an Underground Gas Storage facility at Preesall.

Full details of our proposals, including drawings, maps, environmental, geological and safety information will be publicly available when we enter our formal consultation phase in the coming months. We will be writing to you again to inform you of this and will send a copy of our approved Statement of Community Consultation for your information at this time.

I would like to assure you that Halite takes the process of community consultation very seriously and that gathering and responding to the views of the local community is central to our work. As part of our consultation we will be holding a series of public exhibitions across the local area where all members of the community will have the opportunity to talk to experts, consider the detailed plans and give us their feedback. We would welcome the opportunity to discuss your concerns at these events.

Thank you again for your correspondence.

Yours sincerely,

[Signature]

Bruce Gibson
Senior Project Officer.
22 December 2010

Halite Energy Group,
Unit 5, St. Georges Court,
St. Georges Park,
Kirkham
Preston
PR4 2EF

RE: Proposed application to the Infrastructure Planning Commission for an underground gas storage facility at Preesall, Lancashire to be submitted by the Halite Energy Group Ltd.

The Parish Council would like to comment on the perceived threat to life and property that this application may have in the Over Wyre area.

It is unfortunate that local knowledge of the salt fields has not been heeded when it is known that so many of the exhausted salt shafts have collapsed bringing severe disruption above ground.

With the close proximity of the nuclear generator at Heysham and plans for a further installation the close storage of a potential explosive matter would seem foolish. A 'Three Mile Island/Chernobyl' disaster coupled with the gas storage could take away Morecambe Bay and the coastal areas.

It is the potential for disaster that frightens the Parish Council and residents in Pilling.

Yours Sincerely,

Gillian Benson
Clerk to the Parish Council
Date: 26th January 2011

Mrs. M.J. Harden,
Clerk to the Council (Nether Wyresdale),

Dear Mrs. Harden,

Thank you for making contact with Debbie Morris yesterday regarding the date of your next Nether Wyresdale Council Meeting, which will be taking place on 17th March. We will await your comments from that meeting.

If I can be of any assistance in the meantime, please do not hesitate to contact me.

Yours sincerely,

[Signature]

Bruce Gibson
Senior Project Officer.
MESSAGE FOR DEBBIE MORRIS

Melanie Harbon, Parish Clerk called (tel: 01253-790156). They had the Winmarleigh meeting last night and no comments were made.

---------
Dear Debbie,

Further to our conversation some weeks ago, I am in receipt of the latest paperwork and would like to report the following:

**Winmarleigh parish council**
The area related to on the map does not fall within the parish and there are no other comments.

**Nether Wyresdale parish council**
The area related to on the map does not fall within the parish and I have received feedback from the original paperwork you sent, (if you remember it was discussed at the March meeting as there was no quorum at January’s meeting). The parish council support the proposal but would not like something similar within the parish boundary. If I receive any more feedback, I will let you know.

Melanie
January 28th 2011.

Bruce Gibson,
Senior Project Manager,
Halite Energy Group,
Unit 5 – St Georges Court,
St Georges Park,
Kirkham,
Preston, PR4 2EF.

Dear Mr Gibson,

Ref: Proposed application to the Infrastructure Planning Commission for underground storage facility at Preesall

Thank you for letter dated December 23rd 2010. Unfortunately this Parish Council does not hold a meeting in December and thus was unable to consider your proposals until the members met in January. We are therefore sorry for any delay in our reply although we note there is no statutory limit set.

Having now had an opportunity to consider your letter and its details we can advise that we have grave concerns over general safety and at the present time would object most vehemently until these concerns have been satisfactorily addressed.

Yours sincerely

Donald Porteous
Clerk to the Council
Enclose copy of presentation given by Keith at recent CLP meeting

25th July 2011

Mrs Lynn Squires
Clerk to the Council

Dear Mrs Squires

Pressall Underground Gas Storage Facility ("the Project")

Thank you for your letter dated 14 July 2011.

Taking each of the points you have raised in turn:

An invitation to meet with all the parish councils in the local area was offered in our letter of 4 April. However, unfortunately it seems that this letter may not have reached you due to the letter being addressed incorrectly. I can only apologise for this once again and reiterate that Halite is willing to meet with you and any members of Hambleton Parish Council at your convenience.

We have recently met with Stalmine with Staynall Parish Council and also attended open meetings with the five Local Area Forums. All these meetings were well received, in fact commenting on their effectiveness, Sally Richardson, Partnership Community Engagement Officer at Wyre Strategic Partnership emailed Halite to say: "Thank you for attending this whole round of forums and for a very open and honest discussion about the salt cavern proposals. I think everybody appreciated the frankness of the discussion and I hope it has contributed some interesting views for your consideration".
Halite organised six different exhibition venues across the area. These venues were booked in March 2011 and we informed Lancashire County Council and Wyre Council of the exhibition venues that had been selected in early May 2011. The venues were selected to be as accessible as possible to the community and, whilst it would not have been feasible to hold an exhibition in every single village in the consultation zone, we endeavoured to cover as wide an area as possible. Two exhibitions were held close to Hambleton; one at Stalmine Village Hall and the other at St Oswald’s Church, Knott End. These venues are two miles (four minutes’ drive) and four miles (eight minutes’ drive) respectively from Hambleton. As mentioned in my previous letter, we offered transport to those members of the community that required it.

These exhibitions were promoted in Hambleton with posters circulated to Spar Service Station and Country Vogue Hairdressers in the village. We also requested posters to be put up in the local newsagents and grocery store but this was refused. The exhibitions were also promoted on local radio (Radio Wave and Radio Lancashire), in the two local newspapers that are circulated in Hambleton (Garstang Courier and Blackpool Gazette) and through a mail drop to almost 14,000 households in the area, including almost 1,000 to postcode FY6 9 (Hambleton and Stalmine with Staynall). In line with the Data Protection Act, these are verified households that have opted in to have information mailed to them.

In relation to Halite holding a drop-in session in Hambleton, we were refused the opportunity to hold an event in the Village Hall. We were told by Keeley Jones that “she didn’t realise how much opposition there was to this project, so we do not feel that having an event in the village hall would be appropriate”. At that point a date had never been put forward and this was certainly not given as a reason for refusing our request. Unfortunately we were not aware of the other two venues you refer to.

Regarding the Community Liaison Panel I can only restate the fact that Hambleton Parish Council has been invited on numerous occasions to attend the CLP and has refused to participate. That offer is still open to your organisation and the CLP will continue to meet throughout the application process. Two parish councils are represented on the Panel and we urge others to get involved. The members of the CLP have found the process to be highly informative and valuable and I hope you will reconsider.

I am sorry that you did not find the information provided in relation to the wide range of issues you raised valuable. As I’m sure you appreciate there is a wealth of information, some of it technical in nature, and the most effective way to explain some of the most important elements of our proposals, such as geology, safety and environmental impact, is through face to face discussions. I therefore reiterate that Halite and its technical team would like to invite you to meet with us to discuss your concerns in greater detail. I understand that the next meeting of Hambleton Parish Council is on 2 August and I confirm that Halite is available to attend that meeting if you feel that to be appropriate.
Finally, please find enclosed a copy of the presentation I gave to the CLP around the brine well incident at their latest meeting on 12 July. The minutes of that meeting will be available on our website at www.halite-energy.co.uk once they have been approved by the members.

I look forward to hearing from you.

Yours sincerely

Keith Budinger
Chief Executive
Halite Energy

cc: Stuart Perigo, Lancashire County Council; Garry Payne, Wyre Council; Tom Carpen, IPC
Mr Keith Budinger  
Chief Executive  
Halite Energy Group Ltd  
Unit 5, St Georges Court  
St Georges Park  
Kirkham  
Preston  
PR4 2EF

14 July 2011

Dear Mr Budinger

Preesall Underground Gas Storage Facility

Thank you for your letter dated 13 June 2011 and for allowing this Parish Council a further period of consultation.

I am a little surprised by some of your comments and I will take them in the order they appear in your letter.

I cannot trace any correspondence from Halite offering to meet with us (this of course could have been sent to the wrong address). Should we have received this offer I can inform you that we would have considered that the best use of your time would have been to arrange something that the entire village could attend. We would have therefore refused your offer in favour of an exhibition in the village.

I am also confused by your efforts to hold a drop-in session in the village. The Village Hall is almost fully booked everyday of the week and is nothing to do with the church; there are two further halls in the village which were available on this date.

My next point is the CLP. I am a little upset that you chose to attach a copy of my email of the 25 April which I can inform you was taken very much out of context. This email was sent in reply to two reminders of a forthcoming meeting from Claire Senior and Joanne Lavender.
even though they had previously been informed that we will not be taking part in the panel. We also had a long letter from you regarding the misunderstanding surrounding the CLP and its membership and aims. I chose to present your letter to the next Parish Council meeting and its contents were discussed at length but as it says in my email we still decided not to join the CLP. In our opinion we felt the membership of the panel did not fully represent the community and that important groups had been omitted.

In relation to your answers to the points we raised, I can inform you that we are disappointed with your answers to the majority of the items as you seem to have adopted a negative approach to most of them without giving us a definite answer. Also you have indicated that a number of questions will involve further reports or investigations by you and therefore we would welcome further information on these when it becomes available. I must reiterate that these are important questions from this Parish Council about the wider impact on this community.

One final point – I understand that at the CLP meeting on Tuesday 12 July 2011 you attended to give an update on the recent brine well collapse. This Parish Council did not attend that meeting but feel that because of the importance of the collapse we would welcome a copy of the minutes and any information circulated at the meeting, including any transcript of your update.

Yours sincerely

[Signature]

Lynn Squires
Clerk to the Council

c.c. Lancashire County Council (Stuart Perigo), Wyre Borough Council (Garry Payne), IPC (Tom Carpen)
13th June 2011

Mrs Lynn Squires
Clerk to the Council

Dear Mrs Squires

Pressall Underground Gas Storage Facility ("the Project")

Thank you for your letter dated 24 May. I appreciate the time you have taken to respond to our consultation.

Firstly I would like to apologise for the error in respect of your address. This has now been rectified and I assure you that any further correspondence will be addressed correctly. We have checked that any previous letters addressed incorrectly have been resent – this applies to the letter dated 4th April 2011 which was the official notification of our consultation period. Whilst, you are clearly aware of the proposed Project and have engaged in the consultation process to date, for the sake of good order we enclose a further letter providing a fresh formal notification of the consultation and allowing until 18th July 2011 for a response should you wish to make further comments. This also encloses a DVD of the consultation documents and provides other information on the Project. We can also make hard copies of the consultation documents available for your review - if this would assist please do not hesitate to contact me.

Hambleton Parish Council is an important consultee. We wrote to all local parish councils at the commencement of our consultation period and offered to meet with them. To date only Stalmine with Staynall Parish Council took this offer up. We assumed that as we had not heard to the contrary that you did not require a meeting, however we would be more than happy to do so and if you could provide a convenient date we will organise this.
Halite has held six exhibitions across the area. The nearest one to Hambleton being Stalmine Village Hall, which is two miles from Hambleton. I hope you appreciate that it is not feasible to hold an exhibition in every village in the consultation area, but we felt the locations chosen offered access to the local community. We did also offer transport to any people that needed assistance to get to the exhibition venues.

In addition to the exhibitions, our Community Liaison Coordinator, Debbie Morris, has been holding drop-in sessions in the area, the intention being to ensure a greater opportunity for face to face contact with Halite than offered by the public exhibitions alone. We identified Hambleton as a village that would benefit from such a drop-in session and Mrs Morris approached Hambleton Village Hall on 15 March to discuss holding such an event. On 31 March Mrs Morris received a phone call from a lady called Keeley explaining that the church committee had held a meeting at which a decision has been made not to allow us to use the hall for that purpose.

In relation to the Community Liaison Panel I am a little confused by your statement that you have not been included on the Panel. We received an email from you on 25 April (see attached document) in which you clearly state that, at a meeting on 19 April, Hambleton Parish Council had unanimously agreed not to join the Community Liaison Panel. This followed a number of invitations to you both by letter, phone and email. I would reiterate that the Community Liaison Panel will run throughout the application process and I urge Hambleton Parish Council to join.

Regarding the mail-drop, this was sent to almost 14,000 households in postcodes FY5 4, FY5 5, FY6 0, FY6 9 and FY7 7. Whilst we cannot guarantee that every single household would have received a postcard, 37.7% of people that returned a questionnaire to us did so as a result of finding out about our consultation from the mail-drop. There were however a number of other ways in which residents would have been informed of the consultation which included advertising in the Fleetwood Weekly News, Blackpool Gazette, Lytham & St Annes Express and the Garstang Courier. We also ran a 3-week campaign on Radio Wave to publicise the exhibitions and generated coverage in a wide range of media, including the Fleetwood Weekly News, Blackpool Gazette, Lancashire Evening Post, BBC Radio Lancashire and BBC TV North West.

The Statement of Community Consultation (SOCC) is not intended to provide detailed information on our proposals. The purpose of the SOCC is to outline how we as the developer of the Project, intend to carry out our consultation. Technical details of our proposed Project, including numerous technical reports, maps and drawings are included in our consultation documents. These are the documents that we have been discussing with the local community over the past two months.

In relation to the specific issues you raise:
Impact of traffic

The impact of traffic as a result of our Project, including noise and pollution, has been examined in our Preliminary Environmental Information, which is a key consultation document.

The Halite team is now working on a traffic management plan which will identify ways in which we would mitigate the impact of increased traffic in the local area. This will include considerations such as restricting construction traffic at school times and rush hours.

Property prices

There is no evidence from other similar projects that there has been a negative impact on property prices of nearby residential properties. At Hornsea, Yorkshire, there has been an underground gas storage facility for 30 years.

The caverns at Hornsea are located within 1/3 of a mile of the village of Atwick, near Hornsea. Whilst people living in the village were concerned about the impact on property prices when the development was underway, feedback from a local estate agent indicates that the proximity to the gas storage caverns has never been a problem and that saleability of houses in Atwick is particularly good.

However during our consultation we have received feedback from a number of residents that are concerned about property prices and in response to this we will commission an independent report to examine the likely impact of our proposed Project.

Evacuation

Safety is paramount to Halite and we have undertaken extensive and detailed work to ensure our Project is safe. Our Preliminary Quantitative Risk Assessment looks at foreseeable major risks posed by the proposed Project. Based on the findings of this report we concluded that there is no risk of gas leaking from the caverns into outlying villages. Therefore we cannot envisage a scenario that would require a large-scale evacuation.

All stages in the construction and operation of our Project would comply with strict guidelines set out by the Health & Safety Executive and the Control of Major Hazards (COMAH) regulations. They are in place to minimise the risk of accidents involving dangerous substances and to limit the impact on people and the environment in the unlikely event than an accident does occur.

Terrorism

We have taken the advice of security consultants who state that there is a low risk of terrorism associated with this Project. However, we would ensure that our facility was secure – all areas would be fenced off, infra red cameras and motion monitors would be installed and the site would be manned 24/7.
Safety of pipeline

Our pipelines are required to be built to the same standards that apply to the UK's gas network, which includes the National Transmission System (NTS). These standards are stringent and we would install monitoring devices to detect any movement at the earliest opportunity.

Future development

Halite has no plans for any future development. Our focus is on gaining permission for our current proposed application which is being consulted on widely. Any future development would be subject to a new application for a DCO.

Influence of community on operating conditions

Our proposed facility would be built and operated under strict Health & Safety Guidelines. The parameters under which the facility would be operated are governed by the Control of Major Hazards regulation and therefore there would be limited opportunity for the local community to influence the operating conditions.

Impact of construction period

The impact of the proposed Project and the construction work has been fully explored in our Preliminary Environmental Information which has been publicly available since 4 April. We have spent considerable time with members of the public at our exhibitions to make them fully aware of our plans.

Economic benefits and impact on tourism

During the construction period 200-300 jobs will be created, with a further 35 jobs once the facility is operational. This will have a positive impact on the local economy, in particular for local shops, pubs and restaurants. We believe this would outweigh any temporary impact on the local caravan parks during construction.

Control of site

Control of the facility would be undertaken at the site itself. All stages of construction and then operation of the facility would be undertaken within strict guidelines set out by the Health & Safety Executive. There would be no control of the site from overseas.

Community support

During our consultation we have listened to valuable feedback regarding Halite's potential contribution to the local community, should our proposals gain permission. I am committed to ensuring that Halite would be a good partner in the local community and as part of our review of the consultation we will consider the suggestions that have been made that will help us achieve this.
I hope these responses have provided the information you require. However if you have any further questions, please do not hesitate to contact me. I also reiterate my invitation to meet with Hambleton Parish Council in the near future.

Yours sincerely

[Signature]

Keith Budinger
Chief Executive

cc Stuart Perigo, Lancashire County Council, Gerry Payne, Wyre Borough Council, Tom Carpen, IPC
From:  
Sent: 25 April 2011 09:51  
To:  
Cc: Joanna Lavender; keith.budinger@halite.net  
Subject: Re: Halite CLP Meeting, Tuesday 26th April  
At the meeting of this Parish Council on 19 April 2011 it was decided unanimously not to join the Halite Community Panel but to remain with the Wyre Community Group which had already been formed, and which we feel best serves the interests of this community.

Lynn Squires  
Clerk to the Council

Tel:
HAMBLETON PARISH COUNCIL

CLERK TO THE COUNCIL
MRS. LYNN SQUIRES

TEL:
Email:

Mr Keith Bungler
Chief Executive
Halite Energy Group Ltd
Unit 5, St Georges Court
St Georges Park
Kirkham
Preston
PR4 2EF

24 May 2011

Dear Mr Bungler

Presell Underground Gas Storage Facility
Development Consent Order (DCO)

First of all I would like to introduce myself and give you a little background to this Parish Council.

I am Clerk to Hambleton Parish Council and I live at 11 Carr Lane, Hambleton, not 1 Carr Lane, Hambleton (which does not exist). Halite is using both addresses, therefore I am concerned that not all correspondence sent by Halite has actually reached this Parish Council. I have previously advised you of this but to no avail.

During all of the Canatxx planning application process, this Parish Council was considered to be one of the main consultees. So therefore can I ask why Halite has chosen not to hold a public exhibition in Hambleton? You have also stated that the Community Liaison Panel (CLP) was an important part of the consultation process, again can I also ask why Hambleton Parish Council was not included on this panel?

I have conducted my own survey of a small cross section of residents and a large proportion have not received any item of "mail-drop" from you (including myself and most of the Parish Council). Can you tell me the percentage of houses targeted and how were they chosen?

The Statement of Community Consultation (SOCC) should have provided sufficient information to this village on the project, and the impact it would have on our community.
We consider that in relation to this village you have failed to do this.

This Parish Council strongly objects to the proposed DCO in principal. In the event that you choose to continue with this proposal and more importantly that the IPC are satisfied with the SOCC we would like the following points to be addressed:

1. Site traffic travelling through the village and how has this been assessed in respect of:
   a. Damage to the road and other infrastructure;
   b. Noise and pollution levels both pre and post construction;
   c. What do you consider to be the normal operating times of traffic both weekdays and weekends;
   d. Risk to pedestrians and school children.

Perhaps a compensation scheme could be set up for damage to the roads, drains etc.

2. Traffic congestion at school times and busy rush hours morning and afternoon and how this is being addressed;

3. What assessment has been made on the impact the proposed development could have on property prices and insurance premiums – has any investigation been done and if so what are the documented outcomes;

4. Shard Bridge is our main route in and out of this village, it is often grid-locked at the slightest accident and this community is cut off for long periods;

5. Has any thought been given to a possible evacuation of thousands of people particularly given that Shard Bridge is our only main route in and out of this village. The population is predominantly elderly which could take longer to evacuate. If there was a major gas escape and the wind was from the North it would compromise all escape routes as our roads go South. Again is this procedure documented?

6. Terrorism threat – has any thought been given to an anti-terrorist plan – will the site be manned 24/7 and if so by how many staff? Will the site be policed?

7. Effect on tourism – there are a number of caravan parks in the Over Wyre area, including this village. Much of the local economy depends on this – how will the holiday business be affected by there being a major gas storage facility sited here?

8. The planned gas pipeline from the site at Preesall to Nateby would run alongside roads that are unstable and are continually having to be repaired – the safety of this pipeline is therefore questionable.

9. Can Halite give assurances that there will not be a Phase 2 either by Halite or a subsequent owner? In general terms what influence over future operating conditions of the gas storage facility will the local community be entitled to?

10. The community needs to fully understand the total impact of this scheme including how long the construction period will last and what disruption will there be during this period?

11. What are the economic benefits to the local community if any, and how many permanent jobs will there be on site once any development is complete. Where will the control of this site be undertaken? What controls of this site will take place away from this location either within this country or abroad?

12. What support will Halite be putting into the community in recognition of the
disruption caused if this proposal goes ahead?

As you must appreciate there are perhaps many other issues that this community would wish to have addressed but unfortunately we do not seem to have been given the opportunity to meet with Halite, either as a Parish Council or publically.

Yours sincerely

[Signature]

Lynn Squires
Clerk to the Council

c.c. Lancashire County Council (Stuart Perigo), Wyre Borough Council (Garry Payne). IPC (Tom Carpen)
From: "Jill Speak"
Subject: Proposed Underground Gas Storage Facility at Preesall
Date: 12 January 2011 13:28:27 GMT
To: <info@halite.net>

To Halite Energy Group, F.A.O. Mr Bruce Gibson
From Forton Parish Council

Dear Mr Gibson

Proposed application to the Infrastructure Planning Commission.

Thank you for your recent correspondence to the Parish Council on this matter.

I can confirm that there are no comments on the Project for submission at this stage.

Regards

Jill Speak
Clerk
7th June 2011

Ms J Purle
Clerk to the Council (Town Clerk)

Dear Janet

Response to Halite consultation period/documentation

Thank you for your letter of 25 May addressed to Debbie Morris responding to our recent consultation. On behalf of Halite we appreciate the time that members of Fleetwood Town Council have taken to attend recent meetings, exhibitions and the Community Liaison Panel.

In response to the specific points you raise:

Charging for hard copy materials

It is common practice to cover the cost of producing and issuing hard copies of consultation materials to the public. I’m sure you will appreciate that the scale of the reports and drawings we produced incurred considerable cost. However, full sets of the consultation materials were available to view free of charge at local libraries, Lancashire County Council, Wyre Borough Council, two of the exhibition venues (including the North Euston Hotel) and Halite’s offices. These documents have been publicly available since 4 April. In addition all our reports are available to view or download from our website and a DVD containing all the documents was produced for a cost of £15. Further, a set of reports and drawings has been provided to the Community Liaison Panel, on which your organisation is represented.

During April and May we have had almost 2,000 visits to our website, so whilst we appreciate that not all residents have access to the internet, clearly there has been a large number of people visiting the site.
Number of exhibitions

We have held six public exhibitions throughout the consultation period, attended by 359 people. The Fleetwood exhibition had the highest attendance, with 99 people visiting. The exhibitions were publicised widely with advertising in the Fleetwood Weekly News, Blackpool Gazette, Lytham & St Annes Express and the Garstang Courier.

We also ran a 3-week campaign on Radio Wave to publicise the exhibitions and generated coverage in a wide range of media, including the Fleetwood Weekly News, Blackpool Gazette, Lancashire Evening Post, BBC Radio Lancashire and BBC TV North West. Finally almost 14,000 residents received a postcard to their homes outlining details of the exhibition dates.

42.6% of people that attended exhibitions found out about them from local newspapers, whilst a further 37.7% received the information from the postcard mailed to their homes. 73.6% of people that have returned a questionnaire to us have attended an exhibition.

Community Liaison Panel

We have never stated that people or groups have to be represented on the CLP to have their say on our proposals. This is simply not the case. The CLP, as you will be aware as you have a representative on the Panel, is a good way for the local community to keep ahead of developments in our Project and to ask our team specific questions. I do not agree that the CLP is made of people associated with or in favour of Halite. The current membership includes Fleetwood Town Council, Fleetwood Local Area Forum, Poulton Local Area Forum and Pilling Parish Council, none of which are 'supporters' of the Project. Repeated invitations have been made to the Protect Wyre Group, other Local Area Forums and to all the local parish councils in the area, but these invitations have been declined.

The terms of reference, which include limiting the number of members on the Panel, have been drawn from good practice from other planning applications to ensure effective debate at each meeting – this would not be the case if there was unlimited attendance. The terms of reference have been agreed by the Panel members.

Extending the Project towards Fleetwood

There are no plans to extend the development beyond our current proposals. Clearly the cavern development area is confined to the salt field, which is located in Preesall, and would therefore not extend towards Fleetwood. Further, any subsequent proposals would be subject to a new planning application.

Safety

Safety is paramount to Halite and we have undertaken extensive and detailed work to ensure our Project is safe. Due to the nature of the planning process all our documents are required to be 'preliminary' as they are subject to change following the consultation process. However that is not to say that they are not detailed. The Preliminary Quantitative Risk Assessment is a highly specific and detailed report which highlights the fact that there is no risk from gas leaking from the caverns into outlying villages. Further, the risk of fatality from our Project is less than 1 in 100 million per year.
As our Project is constructed and operated under strict guidelines from the Health & Safety Executive we have to demonstrate to them that all hazards have been identified, that risks have been evaluated and the probability of them occurring has been calculated and that all necessary measures have been taken to reduce the risks so they are as low as reasonably practicable.

Geology and seismic activity

Extensive testing has been undertaken to determine the suitability of the salt field at Halite to store gas. This work has identified two polygons on which our proposed Project has been developed, away from existing caverns, historical workings and faults. In addition we have investigated the permeability of the salt, so that we can be sure that gas stored in the caverns we create cannot escape. Our geological tests have been reviewed by leading salt mechanics expert, Professor Rokahr who has stated: “On the strength of my 30 years' experience in salt mechanics and salt cavern construction, I can confirm that stable, gas-tight caverns can be constructed in the Preesall salt formation for the storage of natural gas.”

Concerns around the impact of earthquakes on our proposed Project have been raised during the consultation. Whilst it is not a requirement at this time, Halite has commissioned a seismic study in order to reassure the community that the caverns and the above ground infrastructure can be designed to meet the required standard. The Health & Safety Executive would recommend against the Project if there was any plausible risk that an incident at the Underground Natural Gas Storage facility would lead to a subsequent incident at any other hazard site, such as the Nuclear Power Station at Heysham.

Brine wells

As owners of a 1,250 acre estate at Preesall, we take our responsibility to maintain and enhance the site very seriously. This includes monitoring and maintaining the 123 brine wells on our land. Our geology experts advise us in regard to the maintenance of the old brine wells on the basis of criticality, however all 123 brine wells are included in our ongoing maintenance programme.

Emergency Services

We have had initial meetings with the relevant emergency services, with our next meeting with the Lancashire Resilience Forum scheduled for 20 June. Should we be successful in gaining approval for our Project, a detailed plan will be produced, working in conjunction with all the relevant authorities.

All stages in the construction and operation of our Project would comply with strict guidelines set out by the Health & Safety Executive and the Control of Major Hazards (COMAH) regulations. They are in place to minimise the risk of accidents involving dangerous substances and to limit the impact on people and the environment in the unlikely event than an accident does occur.
Evacuation

Our Quantitative Risk Assessment demonstrates that there is no risk of gas leaking from the caverns to outlying villages. Therefore we cannot envisage a scenario that would require an evacuation of Fleetwood.

Compatibility with Barrage across River Wyre

The development of a Barrage scheme does not impact on the Halite proposal for an Underground Natural Gas Storage facility or vice versa. We believe that these are completely stand alone ventures.

I trust these responses provide sufficient information in relation to the questions raised by Fleetwood Town Council. However, should you have any further queries, please do not hesitate to contact me. If you would like to meet with the Halite team, please let me know and I will arrange a mutually convenient time and date.

Yours sincerely

Keith Budinger
Chief Executive
Halite Energy
Debbie Morris
Halite Energy Group,
Preston

Dear Debbie,

Re Response to Halite Consultation period / documentation

Via information provided by Halite, members of Fleetwood Town Council have been made aware of the consultation material available on your website, and of the exhibitions held in the area.

A member of the Council has sat on the Halite Community Liaison Panel. I and another member of the Council attended the recent session at the North Euston Hotel, where Protect Wyre Group representatives met with Halite senior management. We are therefore aware of the PWG questions posed to Halite, some of the responses they received, and the further questions and answers posed and replied to at the meeting.

Feedback has been given to the Council from the above, and it was an agenda item on 17th May to discuss and receive the Council’s comments on the consultation material. The comments are listed below:-

- The Notice mentioned a cost of £500 for hardcopy material. This was likely to rule out requests for information in hardcopy format.

- It was felt that comparatively few residents would look at the website. Those doing so would find a lot of documentation, but it was queried how many people would actually read through it all.

- Whilst exhibitions were held in the area and some publicity given, it was felt that there should have been more exhibitions which were more widely and more frequently advertised. There seemed to be relatively poor attendance and it was felt
that more publicity and more exhibitions would have helped bring the information directly to the residents.

- At the initial meeting with Halite, it was said that representatives must attend the Halite CLP in order to have a say in the development of the project. However the CLP membership has been restricted to 15 – and of these, the impression is that most members are associated with Halite and / or are in favour of the proposal.

- Whilst the project is known as the Preesall Underground Natural Gas Storage Facility, if approved it is queried whether further development phases would extend further towards Fleetwood. This is a concern which has not been discussed / denied.

- We acknowledge Halite’s statement that they are working to industry standards regarding investigation and provision of information at this stage, however given the nature of the proposal, safety issues are of major concern to residents in the whole region. As over 100,000 people live within a 3 mile radius of the site it is imperative that detailed consideration and explanation of safety issues is given. The view of Fleetwood Town Council is that rather than just meeting the requirements expected of Halite at this stage, e.g. Preliminary Reports which are non-specific or lacking in detail, that much more detail should have been provided to alleviate fears – as follows.

- Geology – we are not convinced that enough has been done to identify the exact location and depth of fault lines and therefore their proximity to the proposed caverns. The area is known to experience tremors. We need as much evidence as possible to give reassurance that caverns would withstand greater tremors than those experienced to date.

- Power Station – given fault lines and earth tremors in the area and also the proximity to the Heysham Nuclear Power Station, we would like reassurance that in a worst case scenario, gas escape / explosion would not lead to a nuclear incident.

- Brine wells – as mentioned at the meeting referred to, we would like to see more detailed evaluation of problems notified to you regarding the brine wells.

- Emergency Services – we would have liked to have seen evidence of rigorous consultation with all emergency services to ensure that in the worst case scenario, that all residents could be safely evacuated.

- Emergency Services – we would like to have seen confirmation of whether the emergency services would cease operation to secure their own safety given a worst case scenario – and for each of the services, at exactly what point this would be. This needs to be made available to the public so they appreciate exactly what the risk to them could be.
• Evacuation – Fleetwood has 2 main routes in/out of the town, with traffic congestion at peak times during the day. We would like to see detailed plans as to how emergency services could get into the Fleetwood peninsula, and up to 100,000 people could be safely and quickly evacuated from the Fleetwood peninsula in a worst case scenario.

• We would like Halite to consider compatibility of the proposal with development of a Barrage across the River Wyre. Fleetwood Town Council supports the development of a barrage as it would bring employment, tourism and recreational facilities to the town and greatly contribute to the town’s regeneration – which is very much needed. We need Halite to ensure that proposals for a barrage would not be compromised by proposals for underground gas storage.

Yours sincerely,

Janet Purle

Clerk to the Council (Town Clerk)
Dear Debbie,

Following the meeting of Fleetwood Town Council last night (29th January), I can provide the following information.

1) It had been an agenda item to request a representative to sit on the Halte Community Liaison Panel (to replace myself as an interim nominee). The Council agreed that before a representative is nominated they require more information re exactly what is required from a representative on the panel.

2) It had also been an agenda item to request comments from the Council regarding Halte's indicative proposals (informal consultation). The Council agreed that there was insufficient detail to be able to make any comments at this stage.

Kind regards,

Janet Purle

Clerk to Fleetwood Town Council

Email: clerk@fleetwoodtowncouncil.org
Tel: 01253 773435
From: "Janet Purle"
Subject: Re: Proposed Application Letter/Project Description Summary
Date: 5 January 2011 11:22:32 GMT
To: "Debbie Morris" <debbie.morris@halite.net>

Dear Debbie,

Thank you for sending this. There is one document which I cannot open - the "Hal stat cons let final".

If this is a letter, the ones I have from yourselves are dated 23rd Dec, 17th Nov and 22nd Oct. If the attachment is different to this please could you re-send in word format, or scan as a pdf please?

Please can you confirm if you require comments on the Project Summary and maps provided in your email, or on the Project Description referred to? Is there anything else you need Fleetwood Town Council's comments on at present?

Also, please could you give me a brief status update so I can pass on to the councilors?

As mentioned on the phone, the next council meeting is on 25th January, so I can provide feedback of comments after then.

Just to confirm that at the last council meeting on 30th November, it was agreed that Fleetwood Town Council would be happy to provide a representative to sit on a Community Liaison Panel. However, due to very few council members being present at that meeting, it was decided that I would be the representative in the interim until a council member is agreed at the January meeting. I did telephone Michael Brown shortly after the meeting to confirm, and also mentioned that I was aware of a suggestion being made by Ian Mulroy of the PWG that a community panel be set up independently of Halite. I'm not aware of any further developments on this.

Kind regards,

Janet Purle
Clerk to Fleetwood Town Council

----- Original Message ----- From: "Debbie Morris" <debbie.morris@halite.net>
To: 
Sent: Tuesday, January 04, 2011 2:37 PM
Subject: Proposed Application Letter/Project Description Summary

Dear Janet,

Re: telephone conversation today January 4th.

Please find attached copy of letter dated 26th November 2010/Project Description Summary.

Could you please confirm that you have received the email and if you require any more details please do not hesitate to contact me.

Kind regards

Debbie Morris
Community Liaison Co-ordinator
07825 629466
From: "Cockerham Parish Council"
Subject: GAS STORAGE - PREESSALL
Date: 30 December 2010 12:30:28 GMT
To: <info@halite.net>

To whom it may concern,

Thank you for your letter of 23rd December 2010 and I apologise for the delay in replying to you.

Your proposals were discussed at our recent Parish Council meeting. Councilors would like it noted that the project would generate considerable vehicular movement through Cockerham village. Our road network is already very busy with cars, large lorries etc and we would very much appreciate it if some of the traffic (at least) could be directed through alternative routes.

Thank you

D Kellet
Clerk to Cockerham Parish Council
Dear Sir/Madam,

I am writing on behalf of Clitheroe on Brock Parish Council, in response to invitations to the Parish Council to provide information and comments on the Project that is proposed for Presall.

Unfortunately the correspondence sent to me was incorrectly addressed and as a result this has affected our ability to consider the questions you have asked us to respond to by the dates specified. However from the various maps sent to us we have established that none of the area being investigated is within our Parish Council’s boundary and nor do we have any rights of way or other interests in the land within the red line area.

We appreciate that our response is much later than was required but we hope this clarifies our position on this matter. Please note that the correspondence address for the Clitheroe on Brock Parish Council is :-

I shall be obliged if you will acknowledge receipt of this email please.

regards - John Hallas (Parish Clerk)
Dear Mr Budinger,

Proposed application to the Infrastructure Planning Commission for an underground gas storage facility at Preesall, Lancashire to be submitted by Halite Energy Group.

Thank you for your letter dated 4 April 2011 enclosing details of the above scheme and seeking the views of the Borough Council. Whilst Hyndburn is unlikely to be directly affected by the proposed underground gas storage facility, the Borough wish to oppose the development for the following reasons.

As recently as October 2007, following a public local inquiry into the refusal of planning permission and hazardous substance consent application, the Secretary of State dismissed an appeal made by the applicants Canabex. The Secretary of State gave five reasons why he considered that the proposed gas storage facility should not be supported and concerns were also raised about human rights. Although a revised application was submitted in 2009 this was refused by Lancashire County Council in January 2010.

I am sure that you will be aware that the Government has just published its White Paper “Local Growth; realising every place’s potential”. One of the key themes of this White Paper is to shift power to local communities and to reform the planning system in a way that allows people to have greater ownership of the planning system with development being driven from the bottom up.

At the time the planning application was submitted the residents of Wyre and Lancashire made it very clear what their views on this proposal were and this view was supported by the elected members of Lancashire County Council who refused Planning Permission and opposed the development at the Public Inquiry (at considerable public expense). As I have already pointed out, the Secretary of State subsequently dismissed the appeal.

Given that a decision on this has already been taken (twice) at the local level, and supported by the Secretary of State, I can only see this application to the IPC as a means of circumventing the residents and elected representatives of Lancashire as a means of gaining a consent for a development that has already been determined to be contrary to local and national policies and not wanted by the residents of Wyre. Nine thousand people objected to the development and all the local authorities and public bodies that were consulted also objected. Sadly, I suspect it
will now be necessary for Lancashire County Council to defend their decisions, again at considerable public expense.

For these reasons Hyndburn oppose the proposed development and support Lancashire County Council, Wyre Borough Council and the residents of Lancashire, in particular those within Wyre, who made their feelings known at the time. I would be pleased if you could keep me informed of progress but would only add that Hyndburn would not wish to appear at a hearing / inquiry and will not be submitting any further representations.

Yours sincerely,

[Signature]

Simon Prideaux
Chief Planning and Transportation Officer.
Date: 23 June 2011
Ref: A0802/002

Mr K Budinger
Chief Executive
Halite Energy Group Limited
Unit 5, St George’s Court
St George’s Park
Kirkham
PRESTON
PR4 2EF

Dear Mr Budinger

Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire

Thank you for the opportunity to comment on this application but we have no comments to make.

Yours sincerely

Dr Richard Newman
Historic and Environmental Planning Manager

Email: richard.newman@cumbria.gov.uk
Hi all,

Please find another response on email.

Thanks

Johanna

Begin forwarded message:

From: Ian Swain
Date: 5 April 2011 12:09:03 GMT+01:00
To: <community@halite.net>
Subject: Proposed Natural Gas Facility at Preesall, Lancashire

Dear Sir / Madam,

The proposal is a considerable distance from the boundary of Craven District Council and therefore I can confirm that the Council has no objections.

Regards,

Ian Swain | Principal Planning Officer (Enforcement & Trees) | Craven District Council | Tel: 01756
Email:

The Skipton Triathlon takes place on Sunday 17th April 2011 at Craven Swimming Pool and Fitness Centre. The short distance triathlon consists of a 400 meter swim, 20km bike ride and 5km run and is the largest pool based Triathlon in North of England. Solo and Team entries welcome. Full details are available: www.freebirdevents.co.uk
Hi Jo

Response from Burnley Council for your files

Angela

From: Julia Westcott
Sent: 21 July 2011 16:47
To: Sue Graham
Cc: Angela Smith
Subject: RE: Information about proposed natural gas storage facility (Preesall, Lancashire)

Thank you Sue

Julia

From: Sue Graham
Sent: 20 July 2011 09:57
To: Julia Westcott
Cc: Susan Davies
Subject: RE: Information about proposed natural gas storage facility (Preesall, Lancashire)

Julia

I can confirm that we did receive your original correspondence.

Burnley Council is unlikely to respond to the proposal given the distance.

Thanks

From: Julia Westcott [mailto:Julia@writeanglepr.co.uk]
Sent: 19 July 2011 13:20
To: Sue Graham
Subject: Information about proposed natural gas storage facility (Preesall, Lancashire)

Dear Sue

In April this year our clients, Halite Energy Group, sent Burnley Borough Council some information about proposals for an underground natural gas storage facility in Preesall, Lancashire.

They did this as part of the statutory process they need to follow with the Infrastructure Planning Commission and to give you an opportunity to comment on their proposals.

The information was sent to the Town Hall, Manchester Road, Burnley - but I note that the second half of the post code used was incorrect.

I want to make sure firstly that you have received the information - and also to understand whether you would like to give us any feedback.

Could you confirm for me that you have our information, despite the postcode mistake?

Many thanks. I look forward to hearing from you.
Date: 1 June 2011
Your Ref: MB/KA
Our Ref: PS

Michael Brown
Halite Energy Group
Unit 5 St Georges Court
St Georges Park
Kirkham
Preston
PR4 2EF

Dear Mr Brown

Proposed underground gas storage facility, Preesall

Thank you for your letter regarding the proposed application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas facility at Preesall, Lancashire. We have no comments to make on this proposal. Thank you for consulting Bolton Council.

Yours sincerely

Melanie Craven
Development Officer

Director of Development and Regeneration Keith Davies
From: "Marsh, Kristian"
Date: June 30, 2011 4:01:28 PM GMT+01:00
To: "bruce.gibson@halite.net" <bruce.gibson@halite.net>
Subject: HALITE Pipeline - A585 Trunk Road Crossing & Site compound access

Hi Bruce,

I refer to our earlier conversation.

With respect to the actual pipeline crossing of the A585 trunk road we believe that the best approach to dealing with this issue would be via a license under Section 50 of the New Roads and Street Works Act 1991 as opposed to any wayleave or easement. This license effectively gives you similar rights as a Statutory Undertaker where it comes to laying and maintaining your apparatus that crosses the A585 trunk road. Indeed, the license applies to all land within the highway boundaries, not just the metalled surfaces of the carriageway or footway.

I'm just awaiting copies of the guidance and procedures to follow with respect to this type of license from my colleagues in Birmingham. I shall therefore, forward these on to you when they arrive. I envisage that this will be early next week.

The construction of the pipeline must be undertaken via the use of trenchless methods. Which I understand is your proposal anyway. I have therefore attached for your information a copy of the relevant advice that deals with such crossings, HA 120/08, from the Design Manual for Roads and Bridges (DMRB). This advice sets out the procedures that shall be followed prior to any works taking place. It also refers you to the requirement to undertake Geotechnical Certification for your proposed works, in accordance with the requirements set out in HD22, also from DMRB. A copy of this document is also attached.

The above two documents are current at the time of this email. However, the link below should take you to the website where controlled up to date copies of the documents can be freely downloaded.

http://www.dft.gov.uk/ha/standards/dmr_b/vol4/section1.htm

Indeed, I would suggest that access to the documents be obtained using the above link to ensure the most up to date information is used.

For your information the Geotechnical Advisor who should be consulted here at the Highways Agency for the Geotechnical Certification issues is Richard Shires. Richard's email address is and his telephone number is

Turning to the issue of access. Please do feel free to let me have the details of your proposals together with any assessments that have been undertaken. I should also be the first point of contact should your consultants wish to discuss any issues prior to undertaking detailed assessment work.

I trust that this email adequately sets out our position with respect to your proposals at this time. However, should you wish to discuss this issue further please feel free to get in touch with me directly.
Kristian Marsh, Assistant Asset Manager
Highways Agency
Tel: +44 (0) 161 | Fax: + 44 (0) 16
Web: http://www.highways.gov.uk
GTN: 4315 5786

Safe roads, Reliable journeys, Informed travellers
Highways Agency, an Executive Agency of the Department for Transport.

The original of this email was scanned for viruses by the Government Secure Intranet virus scanning service supplied by Cable&Wireless Worldwide in partnership with MessageLabs (CCTM Certificate Number 2009/09/0052). On leaving the GSi this email was certified virus free.

Communications via the GSi may be automatically logged, monitored and/or recorded for legal purposes.
16 August 2011

Mr Keith Budinger
Unit 5 St Georges Court
St Georges Park
Kirkham
Preston
Lancashire
PR4 2EF

Dear Mr Budinger

Re: Feedback on consultation.

Thank you for your letter which we received on the 16 August 2011.

We would like to highlight that while it is the developer’s duty to consult those people prescribed in sections 42 – 48 of the Planning Act 2008 (PA 2008) before an application is submitted, in no part of this consultation is the IPC a consultee. We would like to make clear that the IPC, as the impartial decision or recommendation making body for this project, has had no involvement in this pre-application consultation, other than providing procedural advice to all parties under s.51 of PA 2008.

Under s.51 of PA 2008, the IPC is expressly prohibited from giving “advice about the merits of any particular application, or proposed application”. By law, it is not possible for the IPC to take part in or respond to consultation that concerns the merits of a scheme.

We would be grateful if the IPC could be removed from any correspondence lists intended for parties that have been formally consulted for the purposes of ss.42-48 of PA2008, so as to avoid any confusion about the role of the IPC during consultation.

Yours Sincerely,

Michael Baker
Assistant Case Officer

The IPC gives advice about applying for an order granting development consent or making representations about an application (or a proposed application). The IPC takes care to ensure that the advice we provide is accurate. This email message does not however constitute legal advice upon which you can rely and you should note that IPC lawyers are not covered by the compulsory professional indemnity insurance scheme. You should obtain your own legal advice and professional advice as required.

We are required by law to publish on our website a record of the advice we provide and to record on our website the name of the person or organisation who asked for the advice. We will however protect the privacy of any other personal information which you choose to share with us and we will not hold the information any longer than is necessary.

You should note that we have a Policy Commitment to Openness and Transparency and you should not provide us with confidential or commercial information which you do not wish to be put in the public domain.
7 April 2011

Dear Mr Budinger

Presell Saltfield Underground Gas Storage

PLANNING ACT 2008 (the Act): SECTION 46
ACKNOWLEDGEMENT OF RECEIPT OF INFORMATION CONCERNING PROPOSED APPLICATION

Thank you for your letter dated 1 April 2011 received on 5 April 2011, accompanying the following documentation which I confirm as received:

- Notification to the Commission under section 46(1) of the Act.
- Halite Energy Group’s Project Overview and a DVD containing a Preliminary Environmental Information (PEI) report, a Non-Technical Summary of the PEI, Consultation Documents and Technical Reports.
- A copy of the notice to be published under section 48 of the Act.

This letter acknowledges that you have notified the Commission of the proposed application for the purposes of section 46 of the Act and supplied the consultation information used for consultation under section 42.

The role of the Commission in the application process is to provide independent and impartial advice about the procedures involved and to have open discussions with potential applicants, statutory bodies and others about the processes and requirements of the new regime, but the Commission may not give advice about the particular merits of any particular proposal, including your own.

You may wish to have regard to the guidance and legislation material provided on the Commission’s web site [http://infrastructure.independent.gov.uk/legislation-and-advice/](http://infrastructure.independent.gov.uk/legislation-and-advice/) including the Infrastructure Planning (Fees) Regulations 2010 and associated guidance, which you will need to observe closely in establishing the correct fee to be submitted at successive stages in the application process.

When seeking to meet your pre-application obligations you should also be aware of your obligations under the Data Protection Act 1998 to process personal data fairly and lawfully.
I would be glad to assist with any further queries you may have at this stage.

If you have any queries about this matter, please contact us.

Yours sincerely

[Signature]

Tom Carpen
Case Leader

Tel: 0303 444 5064
Email: Tom.Carpen@infrastructure.gsi.gov.uk
7 April 2011

Dear Mr Budinger

Preesall Saltfield Underground Gas Storage

I refer to the document entitled 'Review of the Proposed Drilling and Completion Programmes for the Preesall Underground Gas Storage Project: Main Report' together with Annexes 1 to 7 inclusive which are all marked 'Confidential'.

The Infrastructure Planning Commission (the Commission) has policy commitments to transparency and openness. The Commission is also subject to obligations under the Freedom of Information Act 2000 (FOIA) and the Environmental Information Regulations 2004 (EIR) that allow for information we hold to be disclosed on request. It would be incompatible with these commitments and obligations to hold information in confidence.

There are exceptions to the duty to disclose 'environmental information' and these are set out in Regulation 12 of the EIR. In order that the Commission can easily identify such information in any future correspondence, we would suggest that these documents are clearly marked and reference made on them to the relevant Regulation(s) in the EIR.

A copy of the DVD upon which you sent us electronic copies of these documents has been made omitting these documents, and the original DVD is enclosed. Please only send us information that is

On a separate matter, we are unable to open the following drawings included under the heading 'Fleetwood Peninsula Proposed Brine Pipeline Routes' on the DVD:

- Jameson Bridge to UU Pipe Crossing (C.01142.X03)
- Jameson Bridge to UU Pipe Crossing (C.01143.X03)
- UU to Seawater Pump (C.01145.X03)
- UU to Seawater Pump (C.01146.X03)
- UU to Seawater Pump (C.01147.X03)
- UU to Seawater Pump (C.01148.X03)
I trust the above clarifies the Commission's position however please feel free to contact us should you require further guidance on this or any other matter.

Yours sincerely

[Signature]

Tom Carpen
Case Leader

Tel: 0303 444 5064
Email: Tom.Carpen@infrastructure.gsi.gov.uk
Dear Bruce,

Thank you for consulting us on the above project proposal. I have now looked at the sections relevant to the historic environment and would make the following comments:

1. The archaeological assessment notes the potential destruction of unknown archaeology on the mosses and for the drying out and dessication of the peat as a result of development. However the report does not make clear that the potential for very significant archaeology on the mosses is relatively high. The lack of evidence to date for archaeology in these areas is largely a result of the lack of any previous development.

2. In view of this there needs to be the fullest possible archaeological assessment of the area in advance of determination. This will help the developer to ascertain the risks involved as well as informing the planning process.

3. Once a full assessment has been made, a detailed statement of the proposed subsequent investigation should be drawn up, together with the contingencies that will be put in place to try to avoid archaeological deposits. Full details should be set out of the proposed mitigation strategy should significant archaeology be encountered.

4. We strongly advise that a suitably qualified and competent archaeological team be put in place, with sufficient scale and resource to provide the necessary support to any discoveries.

5. The developer needs to be aware of the level of risk of significant archaeological discoveries and the potential costs of the necessary response.

Please get in touch with me if you have any queries or would like to discuss any of the above further.

With best wishes,
Jennie

Dr Jennie Stopford
Inspector of Ancient Monuments for Cheshire, Lancashire and Merseyside
English Heritage, Canada House,
3 Chepstow Street, Manchester M1 5FW
Tel: 0161 839 1124
Mobile:

Portico: your gateway to information on sites in the National Heritage Collection; have a look and tell us what you think.

http://www.english-heritage.org.uk/professional/archives-and-collections/portico/
Dear Mr Elletson

Thank you for your recent letter regarding our proposals for an Underground Natural Gas Storage Facility at Preesall, Lancashire. I very much appreciate the time you have taken to respond to us.

Consultation is a very important part of the IPC process and it requires us to seek the views and opinions of the local community which is affected by our proposals. This feedback will be fed into a consultation report which will be submitted to the IPC as part of our application. The IPC will then determine whether or not to accept our application based on a number of aspects, one of which is whether they consider our consultation to have been carried out in an effective manner. All feedback received from the community will be considered by us and included in our report and in that sense your views would be welcome. This of course does not preclude you from submitting your opinions separately to the IPC.

We understand that the Abbeyst.ed incident is still in the minds of many of the local community. It was a tragic accident that should never have happened. However, the risks of entering a 'vessel', particularly any vessel in the ground, are now well understood. Methane is naturally produced in the ground from decaying organic material and this can collect in a confined space in the ground such as a cavern or tunnel which will already contain air, and therefore oxygen, hence the risk of an explosive mixture of methane and oxygen. Our purpose built caverns will be filled with compressed methane and they will contain no oxygen, therefore there is absolutely no risk of them containing an explosive mixture.

The Fukushima and Deepwater incidents highlight the importance of effective risk management. We have studied the worst case scenario in our risk assessment and we believe that the local community is inherently safe because of the design measures we are proposing. Safety is clearly a major concern amongst the community, and an issue that we have discussed at length during our public exhibitions.
Our proposed Project is classified as a nationally significant infrastructure project. It is predicted that by 2020 the UK could be importing as much as 80% of its gas from overseas. This reliance on gas from abroad brings with it significant security of supply issues, with the risk of not having enough gas in period of peak demand to meet the needs of businesses and homes. The UK currently only has around 15 days of gas storage available to it, compared with France and Germany which, as you may know, have in excess of 100 days. If it were to go ahead the Preesall site would add an additional 20% of storage capacity, therefore playing a key part in the future energy security of the UK.

Finally, if you would like to meet with myself and my technical team to discuss the Project then please contact my Personal Assistant Karen Archer on 01772 672244.

Yours sincerely

Keith Budinger
Chief Executive
Halite Energy
27 April 2011

Dear Mr Budinguer

Thank you for your letter of 4 April informing me of your proposed application to the Infrastructure Planning Commission for a Development Consent Order to operate an Underground Natural Gas Facility at Preesall, Lancashire.

I have previously been in contact with your company by telephone to request a meeting to discuss your plans.

As you know, I own part of the land adjacent to the site you are proposing to develop. Furthermore, as a former member of the House of Commons select committee on the environment and a consultant to BP and other energy companies, I take a great interest in issues relating to energy, energy security and the storage of natural gas.

Whilst I note that you have approached me in the context of your statutory requirement to engage in a public consultation, I consider it a breach of natural justice to be required, at this stage, to provide an account of my opinions to you, rather than to the commission.

I will provide a full account of my opinion on your proposed project to the Infrastructure Planning Commission in due course. However, at this stage, I am happy to confirm that, having studied your proposal, I consider it to be wholly inappropriate, and indeed dangerous, for this area.

You may be aware that gas storage is an extremely emotive issue in this part of Lancashire. The reason for this is because of the explosion which took place a quarter of a century ago, when gas escaped from a facility on the banks of the River Wyre at Abbeystead, killing or severely injuring several people. I was the County Councillor for the Wyreside area at the time and remember the tragedy and its effect on the local community very well.

You say in the documentation you have sent that there is only a one in one hundred million chance of something going wrong with your project. I am sure that before Deepwater, BP would have made a similar claim. So would the Japanese Nuclear Power Company before the recent incident at Fukushima.
Energy Companies have a long history of making extravagant claims regarding security, which have then been disproved by subsequent tragic events. To create a gas storage facility, such as yours, close to a substantial residential population and next to the heart of Britain’s tourism infrastructure is reckless and invites a similar catastrophe.

Furthermore, I do not accept that such a development is conceivably necessary, particularly in the current economic climate, on the grounds of national security. This argument in a free market, with as many options as we have for energy supply, is nonsense.

I regret to inform you, therefore, that I do not support your application.

If you have any questions regarding land ownership, I would be grateful if you would address them to my land agent, Robert Parker, at Silverwoods of Clitheroe who can be contacted at ________________, sending a copy of any correspondence to me at ________________. You are no doubt aware that much of the land you are seeking to develop was originally in the ownership of my family and was sold to various of your predecessors in title. Robert Parker will no doubt be able to give you some indication of residual easements, wayleaves, covenants etc.

I would be happy to meet you at any time, if you would like to discuss these issues.

Yours sincerely

[H-D H Elletson]

cc B Gibson
COPY CORRESPONDENCE

Dear Mr & Mrs Whitlow

It was very good to meet you at Tolley's Restaurant last week and thank you for coming along.

As you know, the 4 April marks the beginning of our formal consultation period during which time we will be sharing the details of our plans to develop an Underground Natural Gas Storage Facility at Preenall with the local community, answering questions and gathering feedback.

We are committed to ensuring that everyone who wants to is able to view as much information as they would like about the proposals. Enclosed with this letter are copies of the consultation materials which we showed to you at Tolley's and which we hope you will find useful. These are:

• the Project documentary – a short film explaining our plans and approach
• the Project overview brochure – a 20 page brochure giving an overview of our plans
• the Project information sheets – further details on a range of topics

A full range of documents, including technical reports and drawings are available at our website, www.halite-energy.co.uk or you can view hard copies at the locations listed on page 17 of the Project Overview.

Please don't hesitate to contact us with any questions. Your views are very important to us and we would welcome your feedback to our plans.

Yours sincerely

Keith Budinger
Chief Executive
Halite Energy Group
Halite Energy Group
Unit 5 St Georges Court
St Georges Park
Kirkham
Preston
Lancashire
PR4 2EF

Please ask for: David Thow
Telephone No: 01253

Date: 15 August 2011

FAO Keith Budinger – Chief Executive

Dear Mr Budinger

Proposed Underground Natural Gas Storage Facility, Preesall, Lancashire – Section 42 Consultation.

I refer to your letters of 4 April and 10 May 2011 seeking this council’s views on the proposal. As you are aware, I have, so far, been able to send you draft comments based on my own report to the Council’s Planning Committee (copy attached). I am now able to confirm that the council’s Planning Committee considered the report at its meeting on 10 August and resolved to agree with the comments set out in the report, but subject to the following additional comments.

1. The council expresses significant concern over the proposed loss of salt as a usable mineral resource and the consequential impact on marine ecology arising from the discharge of brine into the sea.

2. The council wish the developer to clarify the purpose of, and justify the need (both on a temporary and permanent basis) for the proposed road link between Hall Gate Lane and Back Lane to the south of Cemetery Lane.

3. The council have significant concerns over the suitability of the geology to ensure the safety of the development and that the developer will need to demonstrate to the council that the geology is suitable and that the development will be safe.

4. The council consider that a full inquiry into the recent wellhead failure at Brine well 45 should be carried out and the findings made public prior to submission of the application to the IPC.

Yours sincerely

David Thow
Head of Planning Services
1. Purpose of Report

1.1 The purpose of this report is to inform the Planning Committee of the IPC process and to seek the Committee’s response to the consultation, by Halite under S42 of the Planning Act 2008. The Committee’s response to the consultation will be passed on to the developer for their consideration prior to the submission of their proposal to the IPC. It should be noted that the actual deadline for the submission of responses to the developer was 16 June and as such representations based on the following report and recommendation have previously been sent as a ‘draft’. The developer, however, has made it known that they will continue a dialogue with the relevant consultees, including this council, after this deadline and until the scheme is submitted to the IPC for formal consideration. As such any additional or amended views and comments arising from this report will be accepted by Halite and taken into account in the development of their scheme.

2. Outcomes

2.1 By responding to the consultation, the developer will be made aware of the council’s concerns about the proposal and will be made aware of any issues that the council consider that the developer should address prior to the formal submission of their application to the IPC.

3. Recommendation

3.1 That the Committee agree with the conclusions set out below and that the Head of Planning Services be authorised to respond to the S42 consultation accordingly.

4. Background

4.1 Members will be aware of previous proposals for the development of an underground gas storage facility in Preesall submitted by Canatxx, the most
recent of which submitted on 27 February 2009 and was refused planning permission on 27 January 2010. These applications have been determined by Lancashire County Council as the appropriate authority for dealing with minerals applications. An associated application for an interconnector gas pipeline connecting the development to the existing north-south Transco gas transmission pipeline was submitted in March 2005 and has not yet been decided. That application fell to be determined by this council but lacked the information necessary for a formal decision to be made. As the current proposals include both the main gas storage facility and an interconnector pipeline, there is no purpose in continuing to consider that planning application.

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4.3 The IPC process seeks to place considerable onus on the developer to instigate and maintain a meaningful dialogue with all relevant consultees, including the Wyre BC and Lancashire CC, amongst others, as part of a lengthy pre application process. This report is in response to a formal consultation by the developer under S42 of the Planning Act 2008. The purpose of this consultation is not to make a recommendation in respect of whether the application should be granted or refused, but is to respond to the developer setting out the council's views on matters that are of concern which the council wishes the developer to address prior to the formal submission of the proposal to the IPC after which the application cannot be amended. In this respect, it should be noted that Lancashire County Council is addressing in detail matters within its responsibilities as a waste and minerals authority (geology in particular) and other matters such as landscape impact assessment, ecology and highways matters.

4.4 The developer will be required to take into account the views of consultees in developing the proposal, and will need to demonstrate how it has done so, or explain why it has not, prior to formal submission to the IPC. The IPC will need to be satisfied that the developer has carried out a thorough and meaningful consultation exercise before it will accept the formal application. Once accepted, the Council will be invited by the IPC to prepare a more detailed Local Impact Report, giving details of the likely impact of the proposed development on the area. Other representations may also be made at that time.
Differences between the current and previous proposal

5.1 The main difference between this scheme and that previously proposed is that these proposals have been reduced in size and scale such that the amount of gas that would be stored is significantly less than that proposed in previous schemes. This proposal seeks permission for up to 19 caverns with a working capacity of up to 600 million cubic metres – about half that of the previous scheme which proposed the creation of between 28 and 35 caverns. The reduction in the gas storage capacity and the location of the proposed caverns has also condensed the surface infrastructure and the overall site area that is required to construct and operate the proposed facility. In this respect the extent of the site (in Preesall) over which the above ground infrastructure is located now extends from Hall Gate Lane just to the south of its junction with Cemetery Lane, Park Lane and Burned House Lane, in a north west direction to the Hackensall sewage works. The main elements of the scheme now include a permanent access road from Hall Gate Lane to the south of Bridge Farm in the east to Back Lane just to the south of Park Cottage Farm to the west (essentially by-passing Cemetery Lane), a security and support facility located at the presently derelict Higher Licklow Farm on Monks Lane, the main gas compressor compound located approximately 350 metres to the north west of Higher Licklow Farm and 200 metres south of Cote Walls Farm, and the booster pump station situated immediately adjacent and to the east of the Hackensall sewage works. The previous scheme also included an additional booster pump station immediately to the east of The Heads, a compressor station off Burrows Lane to the south of The Heads, as well as an additional temporary haul road extending north eastwards from the compressor station to the main access road which joined Back Lane just to the south of Ivy Cottages.

5.2 Likewise, whilst there are now proposed to be a total of seven wellhead compounds, they comprise three large and four smaller compounds, all located in an area extending from just to the north of Hackensall sewage works in the north a distance of approximately 1.0 km to Bank End in the south. This compares to the previous proposal which included six wellhead compounds extending from land to the east of Hackensall sewage works in the north to The Heads (upon which two were proposed) in the south, a distance of 1.8 km.

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6 Relevant Policies

RSS – The North West of England Plan Regional Spatial Strategy to 2021

6.1 The overriding aim of regional policy is to promote sustainable patterns of spatial development and physical change.
- Policy RDF2 which deals with development in the rural areas and open countryside. The policy allows for new development in the open countryside where it "has an essential requirement for a rural location, which cannot be accommodated elsewhere (such as mineral extraction)".
- Policy RDF3 which deals with "the coast" and seeks to enhance the economic importance of the coast and the regeneration of coastal communities in ways that safeguard, restore or enhance and make sustainable use of the natural, built and cultural heritage assets of the North West Coast and address issues of environmental decline and socio-economic decline.
- Policy EM7 deals with minerals extraction and states:- "Plans and strategies should make provision for a steady and adequate supply of a range of minerals to meet the region's apportionments of land-won aggregates and requirements of national planning guidance.

6.2 The developer's Preliminary Planning and Sustainability Statement sets out these policies, and whilst it does address them in part, it is considered that it does not adequately address each of the policies in turn, nor in detail to the extent that it is able to conclude how each is of particular relevance to the proposal or in what way the development complies (or doesn't) with each policy. The developer also needs to clarify what weight they consider should be given to the RSS policies and why, having regard to the Secretary of States intention to abolish the RSS set out in the Localism Bill and the recent CALA Homes judgment.

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6.3 The Plan includes policies directing development to the urban areas and limiting development in the countryside / rural areas.
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- Policy SP13 – Development in the Countryside. Restricts development in the countryside principally to agriculture, forestry, appropriate forms of tourism and other uses appropriate to a rural area.
- Policy SP14 - high standards of design and amenity will be expected of all types of development, including a need for development to be acceptable in the local landscape in terms of scale, mass, style, siting and use of materials; the development should respect biological features; and associated traffic should not have any adverse impact on the local environs nor on the local highway network;
- Policy ENV2 - development of the open coastline will be restricted in a similar way to approved Structure Plan Policy 23 and will only be permitted where there is no detrimental effect on the open character of the defined open coastline;
- Policies ENV4 and 5 - development within or adjacent to sites of nature conservation value will be restricted
- Policy ENV6 - development likely to affect a protected species will only be permitted where the proposal will secure the continued protection of the species;
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6.4 The developer’s Preliminary Planning and Sustainability Statement looks at some of these policies but does not directly address them all, in particular ENV4, 5, 6, 13, 14, 15 and 16, and TREC12. In this respect whilst, under its consideration of PPS25 (Development and Flood Risk) issues it refers to the proposal to submit a detailed flood risk assessment, the relevant local plan policies referred to are not adequately addressed. Also, whilst brief reference is made to policy ENV4, neither it nor policies ENV5 and 6 are addressed adequately. Likewise, under consideration of highways issues, the matter of temporary footpath closures and diversions is considered, but the provisions of policy TREC12, particularly with regard to the Wyre Way, are not addressed. It is further considered that the developer should make its consideration of policy issues clearer by firstly listing all the relevant policies and then addressing them one by one. In this way it can be demonstrated clearly how or to what extent the developer considers that the relevant policies are complied with (or not).

Fleetwood Thornton Area Action Plan (AAP)

6.5 The seawater pumping station and part of the brine pipeline falls within the AAP area but the developer’s Preliminary Planning and Sustainability Statement does not sufficiently address the relevant issues, in that it simply states that the pumping station will not prejudice the implementation of the plan. The seawater pumping station would be situated in an area designated under Policies 2 and 3 for mixed uses including 120 dwellings and
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Other policy matters

6.6 PPS7 Sustainable Development in Rural Areas: The developer’s Preliminary Planning and Sustainability Statement makes no reference to Para 28 – Best and Most Versatile Agricultural Land.

7. Design Issues

7.1 In general, the developers approach to the design of the buildings and the reuse/refurbishment/reconstruction of existing buildings (e.g. at the security and support facility) is to be commended as a means of reducing the visual impact of the development as far as is possible. The seawater pumping station adjacent Fleetwood Dock is, however, proposed to be located in an area of mixed uses, in close proximity to residential development. Whilst the scale of the building is considered to be acceptable, the developer should reconsider the proposed external materials to be used as the use of silver and grey profiled metal cladding is not considered appropriate in this location. Given that the mixed uses are likely to include residential, tourism, and business uses, a building of an ‘industrial’ appearance is not appropriate.

7.2 The design of the building situated within the gas interconnector metering station appears to be the same as that which appears on the current undecided interconnector pipeline application and also follows the design theme used for the main buildings which formed the previous UGS proposal by Canaxox. The design is not appropriate and should be amended to reflect that of other buildings forming part of the present scheme.

8 Plans

8.1 Plans showing the seawater pumping station – drawing nos. A5000 001, 002, and 004 are not drawn using an up to date base plan. The existing and ongoing residential development and access road is not identified. The plans should show both the existing development and the residential development that has been permitted, and that which is part of the current phase of development but as yet not built.

8.2 The brine pipeline plans – drawing nos. C.01142.X03, 11of 20 to 18 of 20, show the brine pipeline within or adjacent to the old railway track bed described as ‘abandoned’ on the plans. The developer should be aware that there are ongoing investigations, in line with policy 5 of the AAP with regard to bringing the line back into use and the council will strongly object to any proposals that would prejudice this aim. In particular further details of how the pipeline will cross the line at Jameson Bridge (given that the existing fill under the bridge would need to be removed to enable the reuse of the line). The
developer should consult directly with Mr Alex Herschell, Poulton and Wyre Railway Society, 3 Lambs Hill Close, Thornton Cleveleys, FY5 5JS. Furthermore, the pipeline would appear to be located within a Biological Heritage Site which follows the line of the track bed and the impact of the development upon this BHS and any mitigation works should be set out.

8.3 The location of the proposed pipeline looks to be very close to an existing bridleway, which is adjacent to the Fleetwood Industrial Lands Biological Heritage Site (BHS). This bridleway provides an off-road link to the Fleetwood Marsh Nature Park and with the potential to link up with the adjacent ABP development. This route needs to be protected as it will help to improve visitor access to Fleetwood Marsh Nature Park and could be part of a longer recreational route linking the Wyre Estuary to Fleetwood. In this respect, the developer should contact Julie Paton at Lancashire County Council on 01772 535022 who is currently the lead officer working on the improvements to this route.

8.4 The brine pipeline plans – the base map for drawing nos. C.01142.X03, 18 of 20 to 20 of 20 should show the existing road and residential development as referred to in para. 8.1 above.

8.5 The plan identifying footpath diversions (drawing no. A9000-030-1) shows a detail of a temporary closure of the footpath to the west of the UU site off Jameson Road. The developer should note that, as part of the mitigation works relating to the extension to the UU facility, it is proposed to extend the footpath to the south to link into Jameson Road. Although the final route has yet to be decided, the location of the temporary construction compound (on land belonging to Wyre BC) may interfere with the line of this proposed footpath.

8.6 The plans for the booster pump station (drawing nos. A 6000–001 and 002) and the gas compressor station (drawing nos. A 2000-001 and 002) do not show how the development impacts on any existing trees, nor do they show any proposed landscaping works. Furthermore, unless the proposal involves no landscaping works around the developments beyond the identified security fencing (I), the 'boundary' between the developed area and land that is to remain in agricultural use is not defined or otherwise delineated.

8.7 The development will affect various protected sites and areas including Liverpool Bay SPA, Wyre Estuary – SSSI, SAC, and SPA, and various BHS sites including Fleetwood Coastal and Dune Grasslands, Rossall School Fields, Fleetwood Marsh and Industrial Lands, ICI Salt Pools, Preessall, Pilling Moss (Head Dyke), Pilling Moss (Eagland Hill). It is considered that these sites should be identified on a plan showing their locations in relation to the development proposals. The impact of the development on these sites and any mitigation proposals should also be set out.

9.0 Other Matters

9.1 Conditions
While it is not intended (nor is this the appropriate time) to set out in detail, a list of conditions which the IPC will be asked to impose, it is relevant at this
point to set out that this council, jointly with Lancashire County Council will work with the applicant to compile a list of conditions which, the IPC would be invited to impose upon the development should it see fit to grant a Development Consent Order.

9.2 Legal Agreement
Whilst it is not intended (nor is this the appropriate time) to set out in detail, the requisite heads of terms of any S106 agreement, it is relevant at this point to set out that this council, jointly with Lancashire County Council will work with the applicant to draft an appropriate agreement which the developer would be bound by should the IPC see fit to grant a Development Consent Order.

9.3 Goodwill Payments
Members may be aware that we are seeking, as part of a legal agreement, ‘goodwill’ payments under the provisions of S2 of the Local Government Act 2000, from Wyre Power in relation to the proposed development of a gas fired power station on the Hillhouse site at Thornton. The ‘goodwill’ payments are being sought to compensate for the impact of the detrimental impact of the development by reason of its scale and loss of employment land that would result from its development. Whilst it is not certain that such payments will be considered appropriate regarding the proposed Halite development, it is a matter which requires further consideration.

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<th>Report Author</th>
<th>Telephone No.</th>
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<tr>
<td>David Thow</td>
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<td>5 July 2011</td>
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**List of Background Papers:**

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<tr>
<th>Name of Document</th>
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<tbody>
<tr>
<td>Various plans and supporting documents accompanying S42 Consultation letter from Halite</td>
<td>4 April 2011</td>
<td>Planning Services and Members Library</td>
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**LIST OF APPENDICES**

arm/rg/pla/cr/11/1008dt1
Report of:

David Thow
Head of Planning Services

Meeting
Planning Committee

Date
10 August, 2011

Item No.
6

Consultation under S42 of the Planning Act 2008 on Proposed Application to the Infrastructure Planning Commission (IPC) for a Development Consent Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire

1. Purpose of Report

1.1 The purpose of this report is to inform the Planning Committee of the IPC process and to seek the Committee’s response to the consultation, by Halite under S42 of the Planning Act 2008. The Committee’s response to the consultation will be passed on to the developer for their consideration prior to the submission of their proposal to the IPC. It should be noted that the actual deadline for the submission of responses to the developer was 16 June and as such representations based on the following report and recommendation have previously been sent as a ‘draft’. The developer, however, has made it known that they will continue a dialogue with the relevant consultees, including this council, after this deadline and until the scheme is submitted to the IPC for formal consideration. As such any additional or amended views and comments arising from this report will be accepted by Halite and taken into account in the development of their scheme.

2. Outcomes

2.1 By responding to the consultation, the developer will be made aware of the council’s concerns about the proposal and will be made aware of any issues that the council consider that the developer should address prior to the formal submission of their application to the IPC.

3. Recommendation

3.1 That the Committee agree with the conclusions set out below and that the Head of Planning Services be authorised to respond to the S42 consultation accordingly.

4. Background

4.1 Members will be aware of previous proposals for the development of an underground gas storage facility in Preesall submitted by Canatxx, the most
recent of which submitted on 27 February 2009 and was refused planning permission on 27 January 2010. These applications have been determined by Lancashire County Council as the appropriate authority for dealing with minerals applications. An associated application for an interconnector gas pipeline connecting the development to the existing north–south Transco gas transmission pipeline was submitted in March 2005 and has not yet been decided. That application fell to be determined by this council but lacked the information necessary for a formal decision to be made. As the current proposals include both the main gas storage facility and an interconnector pipeline, there is no purpose in continuing to consider that planning application.

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5.1 The main difference between this scheme and that previously proposed is that these proposals have been reduced in size and scale such that the amount of gas that would be stored is significantly less than that proposed in previous schemes. This proposal seeks permission for up to 19 caverns with a working capacity of up to 600 million cubic metres – about half that of the previous scheme which proposed the creation of between 28 and 35 caverns. The reduction in the gas storage capacity and the location of the proposed caverns has also condensed the surface infrastructure and the overall site area that is required to construct and operate the proposed facility. In this respect the extent of the site (in Preesall) over which the above ground infrastructure is located now extends from Hall Gate Lane just to the south of its junction with Cemetery Lane, Park Lane and Burned House Lane, in a north west direction to the Hackensall sewage works. The main elements of the scheme now include a permanent access road from Hall Gate Lane to the south of Bridge Farm in the east to Back Lane just to the south of Park Cottage Farm to the west (essentially by-passing Cemetery Lane), a security and support facility located at the presently derelict Higher Licklow Farm on Monks Lane, the main gas compressor compound located approximately 350 metres to the north west of Higher Licklow Farm and 200 metres south of Cote Walls Farm, and the booster pump station situated immediately adjacent and to the east of the Hackensall sewage works. The previous scheme also included an additional booster pump station immediately to the east of The Heads, a compressor station off Burrows Lane to the south of The Heads, as well as an additional temporary haul road extending north eastwards from the compressor station to the main access road which joined Back Lane just to the south of Ivy Cottages.

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8.1 Plans showing the seawater pumping station – drawing nos. A5000 001, 002, and 004 are not drawn using an up to date base plan. The existing and ongoing residential development and access road is not identified. The plans should show both the existing development and the residential development that has been permitted, and that which is part of the current phase of development but as yet not built.

8.2 The brine pipeline plans – drawing nos.C.01142.X03, 11of 20 to 18 of 20, show the brine pipeline within or adjacent to the old railway track bed described as ‘abandoned’ on the plans. The developer should be aware that there are ongoing investigations, in line with policy 5 of the AAP with regard to bringing the line back into use and the council will strongly object to any proposals that would prejudice this aim. In particular further details of how the pipeline will cross the line at Jameson Bridge (given that the existing fill under the bridge would need to be removed to enable the reuse of the line). The
developer should consult directly with Mr Alex Herschell, Poulton and Wyre Railway Society, 3 Lambs Hill Close, Thornton Cleveleys, FY5 5JS. Furthermore, the pipeline would appear to be located within a Biological Heritage Site which follows the line of the track bed and the impact of the development upon this BHS and any mitigation works should be set out.

8.3 The location of the proposed pipeline looks to be very close to an existing bridleway, which is adjacent to the Fleetwood Industrial Lands Biological Heritage Site (BHS). This bridleway provides an off-road link to the Fleetwood Marsh Nature Park and with the potential to link up with the adjacent ABP development. This route needs to be protected as it will help to improve visitor access to Fleetwood Marsh Nature Park and could be part of a longer recreational route linking the Wyre Estuary to Fleetwood. In this respect, the developer should contact Julie Paton at Lancashire County Council on 01772 535022 who is currently the lead officer working on the improvements to this route.

8.4 The brine pipeline plans – the base map for drawing nos. C.01142.X03, 18 of 20 to 20 of 20 should show the existing road and residential development as referred to in para. 8.1 above.

8.5 The plan identifying footpath diversions (drawing no. A9000-030-1) shows a detail of a temporary closure of the footpath to the west of the UU site off Jameson Road. The developer should note that, as part of the mitigation works relating to the extension to the UU facility, it is proposed to extend the footpath to the south to link into Jameson Road. Although the final route has yet to be decided, the location of the temporary construction compound (on land belonging to Wyre BC) may interfere with the line of this proposed footpath.

8.6 The plans for the booster pump station (drawing nos. A 6000–001 and 002) and the gas compressor station (drawing nos. A 2000-001 and 002) do not show how the development impacts on any existing trees, nor do they show any proposed landscaping works. Furthermore, unless the proposal involves no landscaping works around the developments beyond the identified security fencing (!), the ‘boundary’ between the developed area and land that is to remain in agricultural use is not defined or otherwise delineated.

8.7 The development will affect various protected sites and areas including Liverpool Bay SPA, Wyre Estuary – SSSI, SAC, and SPA, and various BHS sites including Fleetwood Coastal and Dune Grasslands, Rossall School Fields, Fleetwood Marsh and Industrial Lands, ICI Salt Pools, Preesall, Pilling Moss (Head Dyke), Pilling Moss (Eagland Hill). It is considered that these sites should be identified on a plan showing their locations in relation to the development proposals. The impact of the development on these sites and any mitigation proposals should also be set out.

9.0 Other Matters

9.1 Conditions
Whilst it is not intended (nor is this the appropriate time) to set out in detail, a list of conditions which the IPC will be asked to impose, it is relevant at this
point to set out that this council, jointly with Lancashire County Council will work with the applicant to compile a list of conditions which, the IPC would be invited to impose upon the development should it see fit to grant a Development Consent Order.

9.2 Legal Agreement
Whilst it is not intended (nor is this the appropriate time) to set out in detail, the requisite heads of terms of any S106 agreement, it is relevant at this point to set out that this council, jointly with Lancashire County Council will work with the applicant to draft an appropriate agreement which the developer would be bound by should the IPC see fit to grant a Development Consent Order.

9.3 Goodwill Payments
Members may be aware that we are seeking, as part of a legal agreement, ‘goodwill’ payments under the provisions of S2 of the Local Government Act 2000, from Wyre Power in relation to the proposed development of a gas fired power station on the Hillhouse site at Thornton. The ‘goodwill’ payments are being sought to compensate for the impact of the detrimental impact of the development by reason of its scale and loss of employment land that would result from its development. Whilst it is not certain that such payments will be considered appropriate regarding the proposed Halite development, it is a matter which requires further consideration.

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<thead>
<tr>
<th>Report Author</th>
<th>Telephone No.</th>
<th>Email</th>
<th>Date</th>
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<tbody>
<tr>
<td>David Thow</td>
<td>01253</td>
<td></td>
<td>5 July 2011</td>
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**List of Background Papers:**

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<th>Name of Document</th>
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<tr>
<td>Various plans and supporting documents accompanying S42 Consultation letter from Halite</td>
<td>4 April 2011</td>
<td>Planning Services and Members Library</td>
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</tbody>
</table>

**LIST OF APPENDICES**

arm/rg/pla/cr/11/1008dt1
Consultation under S42 of the Planning Act 2008 on Proposed Application to the Infrastructure Planning Commission (IPC) for a Development Consent Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire

1. Purpose of Report

1.1 The purpose of this report is to inform the Planning Committee of the IPC process and to seek the Committee's response to the consultation, by Halite under S42 of the Planning Act 2008. The Committee's response to the consultation will be passed on to the developer for their consideration prior to the submission of their proposal to the IPC. It should be noted that the actual deadline for the submission of responses to the developer was 16 June and as such representations based on the following report and recommendation have previously been sent as a 'draft'. The developer, however, has made it known that they will continue a dialogue with the relevant consultees, including this council, after this deadline and until the scheme is submitted to the IPC for formal consideration. As such any additional or amended views and comments arising from this report will be accepted by Halite and taken into account in the development of their scheme.

2. Outcomes

2.1 By responding to the consultation, the developer will be made aware of the council's concerns about the proposal and will be made aware of any issues that the council consider that the developer should address prior to the formal submission of their application to the IPC.

3. Recommendation

3.1 That the Committee agree with the conclusions set out below and that the Head of Planning Services be authorised to respond to the S42 consultation accordingly.

4. Background

4.1 Members will be aware of previous proposals for the development of an underground gas storage facility in Preesall submitted by Canatxx, the most
recent of which submitted on 27 February 2009 and was refused planning permission on 27 January 2010. These applications have been determined by Lancashire County Council as the appropriate authority for dealing with minerals applications. An associated application for an interconnector gas pipeline connecting the development to the existing north–south Transco gas transmission pipeline was submitted in March 2005 and has not yet been decided. That application fell to be determined by this council but lacked the information necessary for a formal decision to be made. As the current proposals include both the main gas storage facility and an interconnector pipeline, there is no purpose in continuing to consider that planning application.

4.2 Since the refusal of the previous planning application, ‘Canatxx’ has become ‘Halite’ with changes in management personnel. Under the provisions of the Planning Act 2008 their new proposals are not submitted as a planning application to either this council or to Lancashire County Council, but have to be submitted to the Infrastructure Planning Commission as the nature and scale of the proposal are such that it is considered to be a Nationally Strategic Infrastructure Project (NSIP). The Government are currently drafting a series of National Policy Statements (NPSs) including those relating to energy and gas infrastructure. Until such policy statements are formally adopted, any proposal considered by the IPC will fall to be determined by the Secretary of State following a recommendation from the appointed Commissioners at the IPC.

4.3 The IPC process seeks to place considerable onus on the developer to instigate and maintain a meaningful dialogue with all relevant consultees, including the Wyre BC and Lancashire CC, amongst others, as part of a lengthy pre-application process. This report is in response to a formal consultation by the developer under S42 of the Planning Act 2008. The purpose of this consultation is not to make a recommendation in respect of whether the application should be granted or refused, but to respond to the developer setting out the council’s views on matters that are of concern which the council wishes the developer to address prior to the formal submission of the proposal to the IPC after which the application cannot be amended. In this respect, it should be noted that Lancashire County Council is addressing in detail matters within its responsibilities as a waste and minerals authority (geology in particular) and other matters such as landscape impact assessment, ecology and highways matters.

4.4 The developer will be required to take into account the views of consultees in developing the proposal, and will need to demonstrate how it has done so, or explain why it has not, prior to formal submission to the IPC. The IPC will need to be satisfied that the developer has carried out a thorough and meaningful consultation exercise before it will accept the formal application. Once accepted, the Council will be invited by the IPC to prepare a more detailed Local Impact Report, giving details of the likely impact of the proposed development on the area. Other representations may also be made at that time.

5 Differences between the current and previous proposal
5.1 The main difference between this scheme and that previously proposed is that these proposals have been reduced in size and scale such that the amount of gas that would be stored is significantly less than that proposed in previous schemes. This proposal seeks permission for up to 19 caverns with a working capacity of up to 600 million cubic metres – about half that of the previous scheme which proposed the creation of between 28 and 35 caverns. The reduction in the gas storage capacity and the location of the proposed caverns has also condensed the surface infrastructure and the overall site area that is required to construct and operate the proposed facility. In this respect the extent of the site (in Prescall) over which the above ground infrastructure is located now extends from Hall Gate Lane just to the south of its junction with Cemetery Lane, Park Lane and Burned House Lane, in a north west direction to the Hackensall sewage works. The main elements of the scheme now include a include a permanent access road from Hall Gate Lane to the south of Bridge Farm in the east to Back Lane just to the south of Park Cottage Farm to the west (essentially by-passing Cemetery Lane), a security and support facility located at the presently derelict Higher Licklow Farm on Monks Lane, the main gas compressor compound located approximately 350 metres to the north west of Higher Licklow Farm and 200 metres south of Cote Walls Farm, and the booster pump station situated immediately adjacent and to the east of the Hackensall sewage works. The previous scheme also included an additional booster pump station immediately to the east of The Heads, a compressor station off Burrows Lane to the south of The Heads, as well as an additional temporary haul road extending north eastwards from the compressor station to the main access road which joined Back Lane just to the south of Ivy Cottages.

5.2 Likewise, whilst there are now proposed to be a total of seven wellhead compounds, they comprise three large and four smaller compounds, all located in an area extending from just to the north of Hackensall sewage works in the north a distance of approximately 1.0 km to Bank End in the south. This compares to the previous proposal which included six wellhead compounds extending from land to the east of Hackensall sewage works in the north to The Heads (upon which two were proposed) in the south, a distance of 1.8 km.

5.3 As with the previous scheme, the main electrical supply to the infrastructure will come via an underground cable extending from the Stanah substation, under the river, but apart from a temporary construction compound on either side of the river, there will be no above ground works/infrastructure in this area.

5.4 The proposal now includes the below ground interconnector gas pipeline extending eastwards from the gas compressor compound, eastwards across Pilling Moss to the existing north-south Transco pipeline at Nateby. This requires an above ground metering station which will be located adjacent to Black Wood, to the east of Black Lane Head, Black Lane, also at a point where the pipeline meets one of the Transco north-south pipelines.

5.5 Whilst, as with the previous scheme, there is much exposed plant, the design of the buildings proposed have been revised significantly. The sea water
pumping station adjacent Fleetwood Dock is now shown as being an 'industrial' style building externally clad with profiled metal cladding 4.5 m to eaves and 6.5 m to the ridge. Previously there was a brick building proposed on this site with a metal panelled roof rising to 8 m at the ridge. Elsewhere, at the security and support facility the proposals involve reusing or rebuilding an existing farmhouse and brick built barns, and at the booster pump station, the building is designed to have the scale and appearance of traditional agricultural buildings.

6 Relevant Policies

RSS – The North West of England Plan Regional Spatial Strategy to 2021

6.1 The overriding aim of regional policy is to promote sustainable patterns of spatial development and physical change.
- Policy RDF2 which deals with development in the rural areas and open countryside. The policy allows for new development in the open countryside where it "has an essential requirement for a rural location, which cannot be accommodated elsewhere (such as mineral extraction)".
- Policy RDF3 which deals with "the coast" and seeks to enhance the economic importance of the coast and the regeneration of coastal communities in ways that safeguard, restore or enhance and make sustainable use of the natural, built and cultural heritage assets of the North West Coast and address issues of environmental decline and socio-economic decline.
- Policy EM7 deals with minerals extraction and states: "Plans and strategies should make provision for a steady and adequate supply of a range of minerals to meet the region's apportionments of land-won aggregates and requirements of national planning guidance.

6.2 The developer’s Preliminary Planning and Sustainability Statement sets out these policies, and whilst it does address them in part, it is considered that it does not adequately address each of the policies in turn, nor in detail to the extent that it is able to conclude how each is of particular relevance to the proposal or in what way the development complies (or doesn’t) with each policy. The developer also needs to clarify what weight they consider should be given to the RSS policies and why, having regard to the Secretary of States intention to abolish the RSS set out in the Localism Bill and the recent CALA Homes judgement.

Adopted Wyre Borough Local Plan (Saved Policies)

6.3 The Plan includes policies directing development to the urban areas and limiting development in the countryside / rural areas.
- Policy SP2 identifies the Fleetwood Docks area within a Strategic Location for development. Within this area, land to the east of the dock basins (upon which the sea water pumping station is proposed) is allocated for housing under Policy H3.3.

- Policy SP13 – Development in the Countryside. Restricts development in the countryside principally to agriculture, forestry, appropriate forms of tourism and other uses appropriate to a rural area.
- Policy SP14 - high standards of design and amenity will be expected of all types of development, including a need for development to be acceptable in the local landscape in terms of scale, mass, style, siting and use of materials; the development should respect biological features; and associated traffic should not have any adverse impact on the local environs nor on the local highway network;
- Policy ENV2 - development of the open coastline will be restricted in a similar way to approved Structure Plan Policy 23 and will only be permitted where there is no detrimental effect on the open character of the defined open coastline;
- Policies ENV4 and 5 - development within or adjacent to sites of nature conservation value will be restricted
- Policy ENV6 - development likely to affect a protected species will only be permitted where the proposal will secure the continued protection of the species;
- Policies ENV13 and 14 - flood risk assessments will be required for development of sites at risk from flooding and development will not be permitted where it would adversely affect the integrity of flood defences;
- Policy ENV15 – Surface Water Runoff
- Policy ENV16 - developments will not be permitted where they are likely to have an adverse impact on the quality of groundwater resources;
- Policy EMP12 – Diversification of the Rural Economy. Accepts proposals that facilitate the diversification of the rural economy subject to criteria.
- Policy TREC12 - Public Rights of Way

6.4 The developer’s Preliminary Planning and Sustainability Statement looks at some of these policies but does not directly address them all, in particular ENV4, 5, 6, 13, 14, 15 and 16, and TREC12. In this respect whilst, under its consideration of PPS25 (Development and Flood Risk) issues it refers to the proposal to submit a detailed flood risk assessment, the relevant local plan policies referred to are not adequately addressed. Also, whilst brief reference is made to policy ENV4, neither it nor policies ENV5 and 6 are addressed adequately. Likewise, under consideration of highways issues, the matter of temporary footpath closures and diversions is considered, but the provisions of policy TREC12 are not addressed. It is further considered that the developer should make its consideration of policy issues clearer by firstly listing all the relevant policies and then addressing them one by one. In this way it can be demonstrated clearly how or to what extent the developer considers that the relevant policies are complied with (or not).

Fleetwood Thornton Area Action Plan (AAP)

6.5 The seawater pumping station and part of the brine pipeline falls within the AAP area but the developer’s Preliminary Planning and Sustainability Statement does not sufficiently address the relevant issues, in that it simply states that the pumping station will not prejudice the implementation of the plan. The seawater pumping station would be situated in an area designated under Policies 2 and 3 for mixed uses including 120 dwellings and industry/business. These policies are not addressed. A section of the brine pipeline also lies within or adjacent the track bed of the former Poulton to Fleetwood railway which is subject to Policy 5 dealing with Transport Network Improvements. This seeks to safeguard the rail corridor to provide an
alternative means of access to and from the area with the ultimate aim of reintroducing the rail service. This is not addressed in the statement and is not reflected on the plans.

Other policy matters

6.6 PPS7 Sustainable Development in Rural Areas: The developer’s Preliminary Planning and Sustainability Statement makes no reference to Para 28 – Best and Most Versatile Agricultural Land.

7. Design Issues

7.1 In general, the developers approach to the design of the buildings and the reuse/refurbishment/reconstruction of existing buildings (e.g. at the security and support facility) is to be commended as a means of reducing the visual impact of the development as far as is possible. The seawater pumping station adjacent Fleetwood Dock is, however, proposed to be located in an area of mixed uses, in close proximity to residential development. Whilst the scale of the building is considered to be acceptable, the developer should reconsider the proposed external materials to be used as the use of silver and grey profiled metal cladding is not considered appropriate in this location. Given that the mixed uses are likely to include residential, tourism, and business uses, a building of an ‘industrial’ appearance is not appropriate.

7.2 The design of the building situated within the gas interconnector metering station appears to be the same as that which appears on the current undecided interconnector pipeline application and also follows the design theme used for the main buildings which formed the previous UGS proposal by Canaxx. The design is not appropriate and should be amended to reflect that of other buildings forming part of the present scheme.

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8.7 The development will affect various protected sites and areas including Liverpool Bay SPA, Wyre Estuary – SSSI, SAC, and SPA, and various BHS sites including Fleetwood Coastal and Dune Grasslands, Rossall School Fields, Fleetwood Marsh and Industrial Lands, ICI Salt Pools, Plessall, Pilling Moss (Head Dyke), Pilling Moss (Eagland Hill). It is considered that these sites should be identified on a plan showing their locations in relation to the development proposals. The impact of the development on these sites and any mitigation proposals should also be set out.
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<td>Planning Services and Wyre BC website</td>
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**LIST OF APPENDICES**
Adrian,

I am afraid that I have been unable to complete my report to the Planning Committee on the S42 consultation although the majority of it (attached) is done and hopefully this will enable you to start addressing some of the councils issues. Matters outstanding include what requirements should be included in the draft consent order.

I am on leave now until 27 June and whilst I will complete my report on my return and forward it to you, it will not now be considered by the council in July as the Planning Committee meeting is being cancelled due to a lack of items to be considered. A formal response can, therefore, now only be sent to you following the planning Committee meeting on August 10th.

<<Halite s42 report.doc>>

David Thow

Head of Planning Services

Wyre Council

Tel. 01253

Email:

Web: www.wyrebc.gov.uk
Places Directorate: Economy, Waste and Infrastructure
Gillian Bishop, Corporate Director / Acting Deputy Chief Executive

Mr. Keith Budinger,
Chief Executive,
Halite Energy,
Unit 5,
St. George’s Court,
St. George’s Park,
Kirkham,
Preston,
Lancashire,
PR4 2EF

Our reference: -
Your reference: -
Please ask for: Angela Neilson
Direct line: 01942 -
Date: 27th July 2011

Dear Mr. Budinger,

Re: Consultation on Proposed Application to the infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire

Thank you for your letter to Ms. Norah Sprung dated the 20th July 2011. As per Norah’s previous correspondence, I can confirm that we have no comments to make in relation to the above project.

Yours faithfully,

Angela Neilson
Planning Officer (Minerals and Waste)

Please reply to: Angela Neilson
Wigan Council, Places Directorate: Economy, Waste and Infrastructure

www.wigan.gov.uk

Building the future together
Dear Mr. Brown

Thank you for the recent consultation on the underground national gas facility at Pressall, Lancashire. This Authority does not wish to make any comments on the proposal.

Yours sincerely

Norah Sprung
On behalf of Mike Worden
Head of Planning and Transport

Norah Sprung
Executive Support Officer

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From: "Hitchcock, Rob"
Date: 12 May 2011 17:00:24 GMT+01:00
To: <community@halite.net>
Subject: Preesall, Lancashire

Dear Sirs,

Consultation on proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas Facility.

Thank you for providing West Lancashire Borough Council an opportunity to comment at this early stage in respect of the proposed Preesall facility and associated pipelines.

Given the nature and location of the development I can confirm, on behalf of the local planning authority, that we have no comments to make at this time in respect of the proposals.

Regards

Rob Hitchcock, B.Sc. (Jt.Hons), Dip CD, MRTPI,
Principal Planning Officer
West Lancashire Borough Council

Tel: 01695
West Lancashire Borough Council,

www.westlancs.gov.uk

Think before you print – save energy, paper and ink.
From: "Richard Robins"

Subject: Prescill, Lancashire

Date: 12 May 2011 17:00:24 GMT +01:00

to: community@fyldeco.gov.net

Dear Sirs,

Consultation on proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas Facility.

Thank you for providing West Lancashire Borough Council an opportunity to comment at this early stage in respect of the proposed Prescill facility and associated pipelines.

Given the nature and location of the development I can confirm, on behalf of the local planning authority, that we have no comments to make at this time in respect of the proposal.

Regards

Rob Hitchcock, BSc, APM, Dip Co, MIPPI

Principal Planning Officer

West Lancashire Borough Council

Tel: 01695

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From: "Leyland, Andrew" <
Date: 18 April 2011 14:10:28 GMT+01:00
To: <community@halite.net>
Subject: planning consultation

<<ufm13.pdf>>

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John R Harrison  DipEnvP, MRTPI
Acting Executive Manager Planning

Telephone: 01695
Website: www.westlancs.gov.uk
Fax: 01695
Email:

Date: 18th April 2011
Your ref: L/2011/0282/OTH
Our ref: Mr R Hitchenock
Direct dial no: 01695
Extension:
Dear Sir/Madam

Proposal: Consultation on proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas Facility.
Location: Preesall, Lancashire.

Thank you for your consultation received on 5th April 2011 regarding the above.

The matter is being dealt with by Mr R Hitchcock and a reply will be sent to you as soon as possible. However, due to current workloads there may be some inevitable delay, for which we apologise.

Yours faithfully,

[Signature]

John R Harrison  DipEnvP, MRTP
Acting Executive Manager Planning

Chief Executive: William J. Taylor MBE
Dear Sir or Madam,

Underground natural gas facility at Presall, Lancashire

Thank you for the letter received 5th April 2011 regarding consultation as required under section 42 of the Planning Act 2008.

I have no comments to make as the proposal is a considerable distance from Sefton and seems smaller than the previous refusal.

Yours faithfully,

Mandy Biagetti
Assistant Team Leader Development Control

Date: 25/05/2011
Our Ref: PAS/2011/0269
Please contact: Mandy Biagetti
Contact Number: 0151 9... 9...
Fax No: 0151 9... 9...
Email: planning.department@sefton.gov.uk
(please include your postal address if contacting us by email)
Mr K Budinger
Halite Energy Group
(Pressall UGSF Consultation)
Unit 5
St Georges Court
St Georges Park
Kirkham
LANCS
PR4 2EF

Dear Mr Budinger

Consultation on Proposed Application to Infrastructure Planning Commission
LOCATION : Pressall, Poulton-le-Fylde
PROPOSAL : To construct & operate an underground natural gas facility

Thank you for your letter of 22/7/11 notifying the Council of the above Project and indicating that any comments or representations in respect to it should be made to you no later than 24/8/11.

I write to advise that the Council has no comments to make upon this proposal.

Yours sincerely

NEIL BIRTLES
Principal Planning Officer
Development Control
Dear Sir\Madam

I write to confirm Development Control has received your recently submitted Application.

The application will now be validated in line with Government Guidance and The Council’s Validation Checklist (which is available on www.rossendale.gov.uk).

I will write to you again within 5 days to advise you if the application has been registered or request further information.

For any further information please contact the Development Control Support Team.

Yours Sincerely, on behalf of

Stephen Stray
Planning Unit Manager
Dear Sirs

Please find attached our acknowledgement of your consultation to Rossendale BC in respect of the EJA application for an underground natural gas facility at Preesall. My colleague Neil Birtles is likely to be the case officer and will be in touch shortly.

Paul Talbot
TechRTPI
Planning Technician
Rossendale Borough Council
(01706)

www.rossendale.gov.uk

For more advice on planning visit the Government's online resource at www.planningportal.gov.uk

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Rossendale Borough Council,
Website Address: www.rossendale.gov.uk
Telephone 01706

preesall.docx (80.3 KB)
Dear Sirs,

Consultation on Proposes Application to the IPC for a Development Consent Order to construct and operate an underground natural gas facility at Preesall, Lancashire.

Thank you for your letter dated 4 April 2011 regarding the above.

I do not consider that this proposal will have a direct impact on any part of Preston City Council’s administrative area. The City Council does not therefore propose to make any comments.

Yours faithfully,

Martin Patsey
Principal Planning Officer (LDF)
Preston City Council
01772
From: "Carl Bunney"

Subject: Consultation on IPC Application: Preesall, Lancashire

Date: 15 April 2011 15:30:25 GMT+01:00

To: community@harle.net

Dear Sir/Madam,

Thank you for consulting North Yorkshire County Council (letter dated 4 April 2011) upon your proposed application to the Infrastructure Planning Commission for a Development Consent Order to construct an operate an Underground Natural Gas Facility at Preesall, Lancashire.

I wish to confirm that North Yorkshire County Council does not have any specific comments to make at this stage.

Thank you again however for consulting us on this matter.

Yours faithfully,

Carl Bunney
Team Leader Regional and Strategic Policy,
Trading Standards and Planning Services,
North Yorkshire County Council

E: Tel 01609

Access to your county council services online 24 hours a day, 7 days a week at www.northyorks.gov.uk.

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Although we have endeavoured to ensure that this e-mail and any attachments are free from any virus we would advise you to take any necessary steps to ensure that they are actually virus free.

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North Yorkshire County Council
Dear Mr Budinger

Consultation under section 42 of the Planning Act 2008 by Halite Energy Group on their proposals to create an underground gas storage facility, associated above and below ground infrastructure, interconnecting brine supply and discharge pipe work and gas interconnection to the national transmission line, Preesall, Wyre.

Section 42 Planning Act 2008
Infrastructure (Applications: Prescribed Forms and Procedure) Regulations 2009 ('APFP Regulations')
Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 ('EIA Regulations')

I write further to your consultation letters on the above and thank you for the extended time period to allow the County Council to consider your proposals.

The County Council has carefully assessed your proposals; I understand officers and the County Council's advisors on geotechnical matters have discussed a number of issues with you, Mr Adrian James of Barton Wilmore acting on your behalf and your own specialists on geotechnical matters. In its role as consulee to the Infrastructure Planning Commission (IPC) process, the County Council no longer has the benefit of other statutory and non statutory consultee advice in the same way it would have as a determining planning authority. The County Council's comments are therefore restricted to those elements of your proposal upon which it has expertise or upon which it has sought specialist advice, most particularly of geotechnical matters. In this respect, the County Council views extend to geotechnical matters, ecology, archaeology, landscape and highway matters; these views are set out in the attached appendix to this letter. The County Council would also like to take the opportunity of raising a number of additional issues set out at the end of the Appendix which it would ask you to address as part of your proposals which will be submitted as part of a Development Order Consent application to the IPC.
Mr K Budinger

16 August 2011

The views expressed are of course on a without prejudice basis and should not be interpreted as an indication of the acceptability or otherwise of your proposal at this stage in the process. The views expressed set out issues and areas of concern that the County Council wishes you to address prior to the formal submission of the proposal to the IPC after which I understand the application cannot be amended.

If you wish to discuss any of the views expressed in the attached Appendix or the next stages of the process with the IPC which involve the County Council, please contact the case officer, Stuart Perigo on 01772 or via his email address

Yours sincerely

M. A. Green

County Councillor Michael Green
Cabinet Member for Economic Development, Environment and Planning
Consultation under section 42 of the Planning Act 2008 by Halite Energy Group on their proposals to create an underground gas storage facility, associated above and below ground infrastructure, interconnecting brine supply and discharge pipe work and gas interconnection to the national transmission line, Preesall, Wyre
(Appendix 'A' refers)

Contact for further information:
Stuart Perigo, (01772) Environment Directorate,

Executive Summary

The County Council as a Local Planning Authority has been consulted under section 42 of the Planning Act 2008, the Infrastructure (Applications: Prescribed Forms and Procedure) Regulations 2009 and Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 on a proposed submission to the Infrastructure Planning Commission for Development Order Consent by Halite Energy Group on their proposals to develop an underground natural gas storage facility at Preesall. The purpose of the consultation is to allow an assessment of the adequacy of the applicant's preliminary environmental information, to ensure that such information presented as part of any application and supporting Environmental Statement (ES) is sufficiently comprehensive to allow a proper assessment of the environmental impacts of the development and to allow the Local Planning Authority to express an initial view as to the acceptability of the development itself. The background to the consultation is set out in the report and the comments on the consultation documents are set out at Appendix 'A'

Recommendation

The Cabinet Member for Economic Development, Environment and Planning is asked to approve that Halite Energy Group be advised of the views of the County Council on the proposals to create an underground gas storage facility, associated above and below ground infrastructure, interconnecting brine supply and discharge pipe work and gas interconnection to the national transmission line, Preesall, Wyre as set out at Appendix 'A' to this report.
Background and Advice

Summary of the Proposal

Halite Energy Group (Halite) is proposing to develop an underground natural gas storage facility at Preesall, Lancashire. The proposal would involve the creation of underground storage caverns created in salt deposits by solution mining. The proposal includes a pipeline to facilitate the importation and exportation of gas to the National Grid National Transmission System at Nateby and a brine discharge pipeline constructed beneath the River Wyre between Preesall across the Fleetwood peninsula and extending off-shore into the Irish Sea. The proposed development falls within the definition of "nationally significant infrastructure". Consequently the proposal will be submitted as a Development Consent Order (DCO) to the Infrastructure Planning Commission (IPC) for determination.

The IPC Process

The IPC was established on 1 October 2009 under the Planning Act 2008 and is an independent body that examines applications for nationally significant infrastructure projects. The IPC process comprises six key stages; pre-application, acceptance, pre-examination, examination, decision and post-decision stages. Upon receipt of an application for development consent, the IPC has 28 days to decide whether or not to accept it. If accepted the IPC have 6 months to examine an application and 3 months to make their decision or recommendation. Independent Commissioners make their decisions or recommendations to the Secretary of State within the framework provided by the Government’s National Policy Statements (NPS).

The proposals are currently at the pre-application stage. At this stage developers must:

- Consult the relevant local authority on what should be in the developer’s Statement of Community Consultation (SOCC), which describes how they plan to consult the local community about their proposal
- Have regard to the local authority’s response to that consultation in preparing the SOCC
- Publish the statement in a locally circulating newspaper and carry out consultation in accordance with the SOCC
- Consult a range of statutory consultees
- Set a deadline of at least 28 days by which responses to consultation must be received
- Notify the IPC of the proposed application
- Publicise the proposed application in accordance with regulations
- Have regard to relevant responses to publicity and consultation
- Prepare a consultation report and submit it to the IPC.
The County Council made comments to the IPC on the Scoping Opinion – the information to be included in an Environmental Impact Assessment (EIA) in November 2010. The IPC issued a scoping opinion to Halite detailing information to be included in the Environmental Statement to be submitted with the application in November 2010.

Halite consulted the County Council on their proposed Statement of Community Consultation (SOCC) earlier in 2011 which described how Halite planned to consult the local community about their proposal.

Under the provisions of Section 42 of the Planning Act 2008, the Infrastructure (Applications: Prescribed Forms and Procedure) Regulations 2009 and Infrastructure Planning (Environmental Impact Assessment) Regulations 2009, Halite Energy Group has consulted the County Council on their draft proposed scheme.

Section 42 of the Planning Act 2008, the Infrastructure (Applications: Prescribed Forms and Procedure) Regulations 2009 and Infrastructure Planning (Environmental Impact Assessment) Regulations 2009, requires scheme promoters to undertake consultation with the local planning authority and other relevant consultation bodies on any scheme design and preliminary environmental information that has been collected in relation to the proposed development. The purpose of the consultation is not to elicit a full response from the local planning authority in relation to the likely environmental impacts of the development, but to ensure that the applicant’s scheme design and preliminary environmental information is addressing the issues that have been identified during the scoping process, to ensure that any fundamental concerns regarding development proposals are raised at an early stage and to provide a basis for further consultation with the local community prior to the application being submitted to the IPC for examination. The advice from the IPC is that once applications are submitted for examination, it will be difficult to make major changes and therefore any design issues or assessment of impacts should be resolved at an early stage. The section 42 consultation is therefore an important part of the process. The consultation process was launched by Halite in April 2011 with the publication of a series of consultation documents made available at public locations and on their web site. Halite appointed a community liaison officer and held a series of six public exhibitions in May attended by 359 people (figure provided by Halite). A questionnaire was made available with the consultation documents and at the exhibitions.

History

There is an extensive history of salt working in the area of the proposed development to the east of the River Wyre estuary and more recently for brine associated with the former ICI works at Hillhouse to the west of the estuary. All these operations have now ceased although the legacy of the operations on the eastern side of the estuary in the form of well heads and extensive ground subsidence associated with former underground dry mining and caverns is very apparent. One of the underground caverns located on the corner of Burrows Lane and Back Lane contains mercury waste (Brine Well 107). The former salt caverns fall within the control of Halite and are periodically monitored. More recent monitoring has been carried out on those caverns located in closest proximity to the current proposals to
establish their stability and ensure there would be not risk of failure which would have an impact on any of the proposed above and below ground infrastructure. Within the last 4 weeks, an incident occurred involving the rupture of the well head to Brine Well 45 causing a major incident involving the discharge of saturated brine onto adjoining land. Measures to stop the discharge were immediately carried out, measures to address the contamination of land are being carried out and the incident is now the subject of a criminal investigation.

In 1998 an application was made to the Department of Trade and Industry for the construction of a gas pipeline from Burrow’s Farm to St Michaels-on-Wyre in connection with a proposed gas fired power station at Fleetwood. However, no consent was issued and the application has now lapsed.

Three planning applications for the creation of caverns in salt by solution mining for the purposes of storing natural gas and associated above ground infrastructure interconnecting pipelines and power cables and two applications for Hazardous Substance Consent (HSC) have previously been considered by the County Council. The applications were submitted by Canatxx Energy Ventures Ltd.

In 2003 planning permission was sought to create an underground gas storage facility to store 2 million tonnes of natural gas (ref 02/03/1455). An appeal against non-determination was lodged in October 2004. The County Council resolved to object to the proposal on eleven grounds mainly relating to the lack of information on geological and ecological issues, unacceptable impacts of traffic, visual grounds and perceived fear of gas migration and negative impacts on individuals health, well being and risk to property in December 2004. The appeal was subsequently withdrawn and substituted by an appeal against non determination in connection with planning application 02/05/1415 referred to below.

In August 2004 an application for Hazardous Substance Consent was submitted for the storage of 2 million tonnes of natural gas (Ref HSC/04/01). The application was refused by the Development Control Committee in December 2004 and against which an appeal was lodged.

In November 2004 planning permission was sought to create an underground gas storage facility to store 1.2 million tonnes of natural gas (ref 02/04/1415). The application contained additional information relating to the geology of the site and sought to address the concerns relating to the previous application. However, the information was considered insufficient and the application was not determined. An appeal against non-determination was lodged in June 2005. The Development Control Committee resolved to object to the proposal in July 2005 on grounds mainly relating to the lack of information on geological and ecological issues, unacceptable impacts of traffic, visual grounds and perceived fear of gas migration and negative impacts on individuals health, well being and risk to property.

In April 2005 an application for Hazardous Substance Consent was submitted for the storage of 2 million tonnes of natural gas (Ref HSC/05/01). This was subsequently amended to 1.2 million tonnes. The application was considered in tandem with the above planning application (ref 02/04/1415). In view of the lack of information relating to geology the application was not determined. An appeal against non determination was lodged by the applicant.
Following a request for the additional geological information (reflective of that previously requested by the County Council) the Secretary of State accepted the Inspectors recommendation and dismissed the appeals against the non-determination of the planning application and application for Hazardous Substance Consent in October 2007. The main issues considered by the Secretary of State were:

- Need, alternatives and principle of development
- Geology, storage technology, mining industry
- Risk (gas migration/explosion), risk assessment, fear as a material consideration
- Sustainability of the working/disposal of mineral salt
- Impact on internationally, nationally, and locally designated sites and protected species
- Landscape and visual amenity
- Impact on the Wyre Estuary/Wyre Way and other footpaths
- Highway safety and highway impact on amenity
- Noise impact on areas east and west of the Wyre Estuary
- Economic/tourism impact
- Human rights

In March 2009 a further planning application was submitted for the creation of an underground gas storage facility to store 1.2 million tonnes of natural gas (ref 02/09/0159). The applicant sought to address the concerns raised by the County Council and those of the Secretary of State. In particular the applicant sought to address the:

- Lack of robust geological modelling
- Inadequate understanding of risk
- Visual Harm
- Proposed means of access
- Uncertainty regarding noise impact

The County Council considered that the application did not contain sufficient information relating to geology and was contrary to policy in respect of landscape issues. The application was refused by the Development Control Committee in January 2010.

Halite acquired the interests of Canatxx Energy Ventures in May 2010. Halite decided not to appeal against the County Council’s decision to refuse planning application 02/09/0159 but instead to submit a modified scheme to the IPC.

**Proposals**

Halite is proposing to develop an underground gas storage facility comprising of up to 19 caverns created in salt deposits by solution mining with a total capacity of 900 million cubic metres of natural gas to give a working capacity of up to approximately 600 million cubic metres with a design life of over 40 years.
In preparing the scheme Halite has had regard to the Secretary of State's decision to dismiss the appeal by Canatxx Gas Storage Limited (CGS) for non determination in 2007 (application 02/03/1415) and the refusal of CGS's most recent planning application by the County Council in January 2010 (application 02/09/0159). Regard has also been had to the assessment principles and the generic impact criteria identified in 'Revised Draft Overarching National Policy Statement for Energy (EN-1)' and 'Revised draft National Policy Statement for Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4).

The primary issues Halite has sought to address in the Environmental Statement are:

- Geology
- Landscape and Visual Impact
- Safety and security
- Perceived fear
- Sustainability of the use of salt
- Ecology
- Highway and public rights of way
- Noise
- Water quality/sea defences/flood risk
- Tourism and economic development
- Marine archaeology and cultural heritage
- Civil and military aviation and defence
- Air quality
- Land use
- Waste management
- Need

The proposed above ground development would extend over an area of 506ha on land either side of the Wyre Estuary and include:

- Security and Support Facility – located within existing buildings at Higher Lickow Farm.
- Booster Pump Station – which will be located next to Hackensall Sewage Treatment Works
- Wellhead Compounds – located on the east side of the Wyre Estuary
- Gas Compressor Compound – located on the main Preesall site to the east of the Wyre Estuary
- Seawater Pump Station – located on the west bank of the Wyre Estuary.

Two pipelines are required as part of the project:

- Brine Discharge Pipeline – a pipeline under the River Wyre to the Booster Pump Station. The brine discharge is then conveyed through a pipeline to a point approximately 2.3 kilometres offshore where it would be discharged to the Irish Sea.
Electricity Pipeline – underground electricity cables from the United Utilities switchgear in the Stanah Switchyard to the proposed Gas Compressor Compound.

Improvements to the road infrastructure in the area would be required – a new road is proposed from the A588 to the site, as well as tracks linking the access road to the main buildings and wellheads.

The main buildings and pipelines would be constructed over a three-year period with the cavern creation process taking up to eight years to complete.

Halite has set out the proposals in the following documents. The documents are extensive and contain a considerable amount of detail much of which is very technical:

- Project overview – overview of the project and consultation process
- Preliminary Environmental Information – preliminary assessment of environmental effects of the Project; also provides details of alternative Project designs, layout and pipeline routes that have been considered.
- Preliminary Quantitative Risk Assessment – Examines risks posed by the Project.
- Planning and Indicative Drawings – Indicative drawings in respect of the proposed Project.
- Golder Report – Summarises findings of salt permeability tests.
- Drilling Report – Review and analysis of proposed drilling programme and techniques required to create caverns.
- Pipeline Subsidence Report – Analysis of pipeline route stability.
- NTS Pipeline Report – Analysis of the proposed route for the pipeline from Preesall to Nateby and alternative route that have been considered.
- Preliminary Planning and Sustainability Statement – Overview of relevant planning policies and summary of how the project has responded to reasons for refusal of previous planning application made by Canatxx Gas Storage Limited.
- Preliminary Design and Access Statement – Overview of design principles for above ground structures forming part of the Project.
- Statement of Community Consultation – Sets out the community consultation programme, what we will consult on, who we will consult with, the proposed method of consultation.

Halite has invited the views of statutory consultees as well as various other bodies, organisations and the public in relation to the project.

Following the consultation exercise Halite will assess the responses and the need to amend scheme prior to submission to the IPC for a DCO. An assessment of the comments and any amendments to the scheme will be reported to the IPC in a consultation report when the application for a DCO is submitted. If any significant changes are made to the project design as a result of feedback received during the consultation, there may be a need for further consultation on revised proposals.
The final scheme will then be submitted to the IPC; if the submitted information is found acceptable and valid the DCO will be registered. The IPC will then undertake a consultation exercise and the County Council will be invited to undertake an impact assessment of the proposals.

Halite is of the view that the proposal would make a significant contribution to the national supply of stored gas.

Consultations

The County Council is a consultee in the IPC process in a similar way that other bodies and organisations are consulted by Halite Energy at this stage in the process. In assessing the proposals the County Council does not have the benefit of advice from those other bodies and organisations in the same way as it has when determining previous planning applications. It must therefore rely on other bodies and organisations to comment on specialist areas such as marine conservation, impact on water bodies, water abstraction and health and safety.

The County Council can draw on specialist advice in respect of geology, ecology, archaeology, landscape and highway issues. Throughout the previous planning application process, specialist consultants were appointed to advise on geological and hydro geological matters. The consultants have been retained for the purposes of the IPC process.

The views of the advisors and general views on the proposal in respect of these matters and general comments on the proposals are set out at Appendix 'A' to this report.

There is also the opportunity to raise other matters with Halite Energy Group relating to the development proposal that should be considered at this stage in the process without prejudice to the consultation on any application for Development Order Consent made to the IPC. These matters relate to the preparation of conditions and the possible need for the funding of an independent monitoring regime, the mitigation of impacts through Section 2 of the Local Government Act 2000, the setting up of bonds, provisions for a traffic routeing agreement and evacuation plans.

Assessment

The applicant's ES and supporting information seeks to address the concerns of the then Secretary of State set out in her decision to refuse the appeal on planning application 02/04/1415 and application for Hazardous Substance Consent and the reasons for the County Council refusing planning application 02/09/0159.

The ES and supporting information is extensive. It is considered that the information submitted to date (subject to those matters raised in Appendix 'A') addresses the issues that have been identified during the scoping process sufficient to facilitate a Development Order Consent to be submitted to the Secretary of State.

However, in light of the recent rupture of wellhead 45, it is essential that there is a full understanding of the stability of existing caverns which may determine the capability
of the site being developed and the design and layout of proposed infrastructure and access ways.

Conclusions

The applicant's ES and supporting information seeks to address the concerns of the then Secretary of State set out in her decision to refuse the appeal on an earlier planning application and application for Hazardous Substance Consent, those views expressed by the County Council at the time and the reason the County Council refused the most recent planning application in January 2010. The applicant's ES and supporting information also seeks to address those matters set out in the Scoping Opinion set out by the Infrastructure Planning Commission and the views expressed by the County Council as part of the IPC consultation process.

It is for the applicant to properly assess the environmental impacts of the development and in light of the views expressed by those bodies and organisations as part of the current consultation exercise. Views on the proposal are set out in the appendix to this report along with other issues that Halite is invited to consider prior to making their submission for a Development Order Consent to the IPC.

As part of those views it is considered essential that the stability of the existing caverns which may determine the capability of the site being developed and the design and layout of proposed infrastructure and access ways is established prior to the submission of any Development Order Consent to the IPC particularly in view of the recent incident associated with Brine Well 45.

Recommendation

It is recommended that the views set out at Appendix 'A' be conveyed to Halite Energy Group.

Implications:

Risk management

The County Council has been invited to comment on the proposals by Halite. It is necessary to make comments at this stage in the IPC process so they can be properly be taken into account by Halite in preparing their final scheme to be submitted to the IPC. In the event any issues are not raised at this stage, the opportunity may be lost or comments not taken into account by the IPC when they consult on the submitted DCO and the County Council may lose the opportunity to raise issues which may influence the outcome of the decision.

Financial

The County Council has retained specialist external consultants to advise on geological and hydro geological matters throughout the previous planning application and the current IPC process. It is proposed to retain the consultants to advise the County Council on any consultation received from the IPC in the event a Development Order Consent is submitted and to represent the County Council at any subsequent inquiry that made be held by the IPC.
As the proposal will no longer be determined by the County Council there is no risk of appeal or the County Council incurring costs of hosting an appeal or any award of costs against any views that may be expressed.

Any representations made to the Cabinet Member prior to the issue being considered in accordance with the Public Notice of Forward Plans

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Local Government (Access to Information) Act 1985
List of Background Papers

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<tr>
<td>Halite Energy Group letter and supporting documents and consultee responses</td>
<td>10/05/11</td>
<td>Stuart Perigo, Environment Directorate (01772)</td>
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<tr>
<td>IPC Scoping Opinion</td>
<td>11/2010</td>
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<td>LCC Scoping opinion comments</td>
<td>16/11/10</td>
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<td>LCC Report and decision notice on planning application 2/09/0159</td>
<td>27/01/10</td>
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<td>Secretary of State's decision letter on planning application 2/04/1415</td>
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Reason for inclusion in Part II, if appropriate

N/A
Consultation by Halite Energy Limited on their proposals to create an underground gas storage facility, associated above and below ground infrastructure, interconnecting brine supply and discharge pipe work and gas interconnection to the national transmission line, Preesall, Wyre.

The County Council is a consultee on the proposals by Halite Energy. The County Council does not have the benefit of advice from other bodies and organisations in the same way as it does when determining planning applications. It therefore relies on other bodies and organisations to comment on specialist areas such as marine conservation, impact on water bodies, water abstraction and health and safety as part of the consultation process.

The County Council is of the view that the applicant's Preliminary Environmental Information Report and supporting documentation seeks to address the concerns of the Secretary of State set out in her decision to refuse the appeal on the previous planning application and application for Hazardous Substance Consent and those views expressed by the County Council at the time. The applicant's Preliminary Environmental Information Report and supporting information also seeks to address those matters set out in the Scoping Opinion set out by the Infrastructure Planning Commission and the views expressed by the County Council as part of the IPC consultation process.

The County Council is of the view that it is for the applicant to properly assess the environmental impacts of the development and in light of the views set out in the appendix to this report and in light of comments made by other organisations and bodies.

The County Council has drawn on specialist advice in respect of geology, ecology, landscape, archaeology and transport issues and with regard to the views it expressed to the Infrastructure Planning Commission (IPC) on the Scoping Opinion and to the Scoping Opinion provided by the IPC. Throughout the previous planning application process, specialist consultants were appointed to advise on geological and hydro geological matters. The consultants have been retained for the purposes of the IPC process.

The proposals have been assessed in respect of these issues and comments provided along with further general comments and other matters referred to on the proposal as follows.

The comments should not be interpreted as the County Council's views on the proposal, only those issues it considers Halite Energy Group should take into account in preparing their submission for a Development Order Consent to the Infrastructure Planning Commission.
Main Issues

Geology

Both the Secretary of State and County Council considered that the geological assessments that had been submitted with past planning applications were incomplete. The Technical Assessor to the Inquiry was of the view that at least two more seismic survey lines and the drilling of and geophysical logging of boreholes along the survey lines be undertaken.

Following a review of the geological information and a critical review of the previous planning submissions and further geological assessments ‘hazard exclusion zones’ have been identified outside of which, based on available data, the risks of cavern construction were considered too high.

Two polygonal areas have been identified outside the buffer area in the northern part of the site where it is proposed to develop the caverns. The proposed areas are significantly smaller than the area within which caverns were proposed in previous applications resulting in fewer caverns and a slightly smaller gas storage capacity. All wellheads and associated above ground infrastructure would be located on the east side of the Wyre estuary.

A review of the following documents has been carried out:

- Geological Summary Report (GSR) – March 2011 (Mott MacDonald) (Erroneously dated March 2010)
- Preliminary Risk Assessment – March 2011 (Mott MacDonald)
- Reports on pulse tests and gas injection tests – March 2011 (Golder)
- Drilling Report – March 2011 (Baker Hughes)
- Pipeline Subsidence Assessment Report – March 2011 (Mott MacDonald)
- Preliminary Environmental Information Report – March 2011 (Hyder)

The GSR includes a number of items of new and revised information not included in earlier versions of the report, as follows:

- Methods and results of mechanical tests on salt and interbedded mudstones, with cross-referencing to the Golder reports (page 26)
- Thermal properties of the salt and overburden (page 28)
- Confirmation of the extent of the Preesall mine (page 30)
- Constraints on the position of the Burn Naze Fault (page 35)
- Additional hydro geological information and discussion of wet rockhead (page 38)
- A „relative safety index“ in relation to potential gas migration pathways, with cross-referencing to the risk assessment report (page 46)
- Potential subsidence contours based on the current indicative cavern layout (page 51)
- Volumetric analysis of the indicative cavern layout
In general terms it is concluded that the new information strengthens the conclusions drawn in earlier versions of the GSR as regards the practical achievability of accommodating caverns in the Preesall Halite and that the developer has demonstrated that the previous concerns expressed by the County Council and the Secretary of State could not be sustainably maintained. Nevertheless it is considered that there is still a need to address certain matters and which are set out under the following headings rather than in respect of individual reports:

**Wet rockhead**

On the basis of the hydro geological analysis in an earlier version of the GSR, it is now considered that wet rockhead is not a major issue for the area within which caverns are proposed. The current version contains new information and argument which appears to overplay the issue and which will be discussed further with HEGL, but it is not considered that wet rockhead will extend into the development area.

**Hazard exclusion zones and cavern locations**

The description of the hazard exclusion zones in the GSR around the old salt caverns (page 32) states: “The hazard zones are applied to the *centre* of the existing cavern or exploratory hole” (italics added). Since the distance between the walls of adjacent caverns is an important factor in hazard avoidance it is considered that the exclusion zones should be measured from the cavern walls.

Reference is made on page 33 of the GSR to the drilling of BW130 and the supposed incident of drill rods dropping at the top of the salt, suggested a cavity. Information provided by the drilling company rebuts the statement of the drill-hand and it is unlikely that the facts of this matter can now be resolved with certainty. However, an appropriate exclusion zone is proposed for this well and, during the drilling of cavern development wells, measures should be adopted to confirm the integrity of the salt/mudstone interface at specific cavern locations (see *Drilling procedures* below).

In other respects the exclusion zones appear satisfactory.

**Subsidence**

On page 34 of the GSR there is a reference to the possible impact of suspect former brine wells on sub-surface infrastructure (specifically the connection pipeline to the NTS) in the brine-field area, and this is the subject of a stand-alone report – the Pipeline Subsidence Assessment Report. That report provides an assessment of, *inter alia*, the potential future subsidence related to Preesall Mine and brine wells BW44 and BW50 and the impact on the pipeline route passing between them. It is noted (page 30) that there is a “pinch-point” of about 80m width between the mine and the brine wells where settlement of up to 50mm could occur over a length of 30m of the pipeline. It is implied (though not stated) that this is an acceptable amount of settlement and which may be found acceptable subject to the comments on monitoring and maintenance referred to below. Surface, subsurface and brine-well settlement monitoring measures are proposed, and possible mitigation measures are
identified for consideration as necessary. These include induced collapsing or infilling of BW44 and BW50 and protective piling adjacent to the wells or the pipeline.

Geomechanics

A number of items are missing from Tables 4.4 (gas threshold pressure testing) and 4.5 (rock testing) of the GSR (which are also reproduced as Tables 3.3a and 3.3b in the Pipeline Subsidence Assessment Report); these should be included in future versions of the report.

In Appendix 3 of the Drilling Report (Drilling Fluids), section 2.3.5, second paragraph, the fracture pressure is defined as the pressure that breaks down the rock matrix and forms fractures. However, in the accompanying Figure 2-1 the Frac gradient does not correspond to the breakdown pressure data that have been specified in Table 4.4 of the GSR.

Otherwise it is considered that the geomechanical data included in the various reports provides a comprehensive basis for the overall assessment of the proposals.

Construction procedures

The Preliminary Risk Assessment (PRA) by Mott MacDonald includes a more detailed overview of the project than other documents previously produced; the project description has been reviewed as it relates to the formation and operation of the storage caverns.

During cavern washing a nitrogen gas blanket would be used to prevent over-washing of the cavern roof (page 20). The gas/brine interface would be monitored by recording the well-head nitrogen pressure. The volume of cavern space created each day would be calculated from the brine volume and specific gravity, and by checking volume against depth it will be possible to ensure that the planned cavern diameter is not exceeded. Sonar surveys would be carried out intermittently for confirmation of the cavern volume and shape. This addresses queries that have been raised by the County Council about the control of cavern size.

The Schedule on pages 30-31 of the PRA shows all surface infrastructure being completed prior to the drilling of any wells. Whilst it is clear that substantial surface infrastructure must be installed before cavern washing (to allow for the provision of seawater and the disposal of brine), it is questioned whether at least some of the wells could be drilled before the infrastructure is developed, for the purpose of demonstrating such matters as the success of the drilling technology (especially for the slant wells) and the integrity of the salt/mudstone interface.

On a regulatory matter, it is noted that the disposal of drilling wastes is intended to be in existing caverns 118 to 123 (PRA page 31), but there is no mention of the necessity for an environmental permit (waste management licence) to cover this activity in the section on regulatory requirements (page 38) or on the linked HSE web page.
Drilling procedures

Further details of the proposed drilling procedures are given in the Baker Hughes Drilling Report. In relation to previous concerns that the curvature of the slant wells would prevent coring of the salt/mudstone interface, it is noted that possible procedures for core recovery are now suggested in the Drilling Report (page 20). Baker Hughes suggests either the use of a wireline-conveyed coring device or the drilling of a straight section at the interface to allow coring. It is considered that either of these would be acceptable.

Several precautions for minimising casing wear are now specified in Appendix 4 of the Drilling Report (Casing Design and Installation) and which are considered acceptable. According to the Executive Summary of this appendix, manufacturers have confirmed the sealing integrity of casing connections (couplings) in curvatures exceeding 10º / 30m (the maximum proposed for Preesall installations is less than 6º / 30m). However, connections have not been tested for combined bending and rotation through such curvatures. Baker Hughes recommends that such testing be carried out if screw connections are to be used, but it is understood that HEGL now propose to use welded connections which will have similar integrity to the rest of the casing.

Risk assessment

The Preliminary Risk Assessment is an attempt to quantify the surface and subsurface risks associated with the development. The sub-surface risk assessment has been reviewed.

The assessment is essentially in two parts, namely a literature review and specific analysis of the Preesall conditions. The literature review focuses on published HSE documents and in broad terms the generic assessments in those reports, which are based to a large extent on failure rates worldwide, are accepted. It is questionable whether some of the averages quoted from the HSE reports are relevant to specific situations and the conclusion on page 46 that the failure rate for pipe systems is similar to the rate for geological cavern failures is probably incorrect, since the latter are almost unknown. However, the PRA rightly points out on page 48 that the risk assessment of the Preesall proposal needs to be more specific than the generic approach of the HSE documents.

The source-pathway-receptor approach adopted in the PRA is accepted, together with the qualitative assessment of the likely sources (points from which gas might escape), gas migration pathways and potential receptors. The identified pathways do not include near-surface man-made features such as utility runs (pipe bedding materials can provide pathways more-or-less directly into properties), or over-pressurised, fractured rock, although “more permeable beds” are included (page 49). The near-surface pathways are less significant than the deeper migration pathways but further assessments should include them. The appendices setting out the risk calculations include pathway P9, which is not listed or defined in the text, but from the context it is assumed it refers to Sherwood Sandstone to the west of the Burn Naze Fault.
A main concern relates to the attempt to quantify the pathways, and specifically to the numerical values applied to some of the factors. Many of the assumptions used in the risk calculations are such that some quite feasible variations in the figures used would completely alter the relative importance of the different scenarios considered. It is therefore difficult to see what the comparative analysis achieves. Moreover, the absolute likelihood of any of the scenarios being accurately represented in numerical terms is extremely low.

It is questioned whether the calculations provided in the PRA can be considered realistic, and therefore whether they have any practical value. Nevertheless, it is the numerics rather than the overall assessment of risk that is questioned. On a qualitative basis, and principally because of the use of hazard exclusion zones, it is considered that the current proposals incur negligible risk of fatality, injury or significant property damage.

The review of risk failures should ensure that the number and extent of recorded loss of gas incidents are comprehensively reported.

**Monitoring and Maintenance**

Recently there has been a serious rupture of well head 45. Concerns have previously been expressed to the stability of the former brinefield and in particular the caverns in proximity to the proposed caverns and above and below ground infrastructure. There is historic evidence of unpredictable catastrophic failure of caverns in close proximity to the proposal. Details of the location of the existing caverns should be presented at a readable scale along with monitoring records of the former caverns, the current monitoring regime and results thereof to demonstrate the stability of the caverns, what risk they pose to the development proposal, what future monitoring regime will be employed and what amended design of the below and above ground infrastructure may be required and what mitigation measures and safeguards would need to be in place. Details of the extent of existing caverns should be projected to the surface and shown in cross section form in relevant directions or presented in a three dimensional visual model. This should also be demonstrated for the interconnecting pipe work to the gas transmission line and for the electricity supply given the known instability of the cavern and wellhead located to the north of Height O'th Hill Farm in close proximity to which the power supply cable is proposed to be aligned. It is essential to demonstrate consistency in submissions regarding the extent and duration of former mining activities for both the dry mine and the former caverns and how these relate to the proposed above and below ground infrastructure.

Recently there have been recorded earthquakes in the area and into which investigations are being carried out to establish their cause and possible association with investigations for shale gas. Assessment should be made of the impacts such events may have on the integrity of the editing brine caverns and on the proposed above and below ground infrastructure.
Environmental impact

The possible environmental effects of the development are considered in the Preliminary Environmental Information Report by Hyder. The sections relevant to geology and ground engineering have been reviewed and the geology of the area, potential risks, mitigation measures, residual risks and necessary further investigation works are considered to be satisfactorily described. The information in the report is consistent with that in the more detailed technical reports.

An environmental issue arises from the Risk Assessment report in relation to possible groundwater pollution following decommissioning of the caverns (section 2.1.106, page 25). It is not clear whether the proposed sealing of the caverns is intended to be by permanently shutting the wellhead brine valve or by plugging the wells at depth. The proposed ICI approach to long-term maintenance is only applicable to the former case. In the latter case brine will eventually infiltrate into the rock surrounding each cavern; it will be necessary to estimate the thickness of the infiltration zone and to assess the potential risk of pollution of any nearby aquifer formations.

Ecology matters

A review of the documents has been carried out. Based on the information submitted to date, it appears that the ongoing ecological assessment is seeking to address the issues described in previous scoping comments. It will need to be ensured that the final environmental statement submitted with the planning application adequately addresses the requirements specified in previous scoping comments.

It is stated within the consultation documents that the final proposals will include an ecological and landscape management plan. However, it is also made clear within the consultation documents that the ecological surveys and impact assessment are not complete.

Until complete ecological survey data and a full impact assessment are provided, it is not possible to make adequate comments on the likely impacts of the proposed development or the adequacy of any avoidance, mitigation or compensation proposals. An appropriate area of land to be covered by the proposed ecological and landscape management plan, and the necessary content of the management plan cannot be adequately determined in the absence of a complete ecological survey and impact assessment.

Based on the survey results to date, submitted with the consultation documents, it appears that there is potential for impacts on various sites, habitats, species and features of ecological value, for example, statutory designated sites, Biological Heritage Sites, species populations associated with these sites, statutorily protected species, species and habitats of principal importance (NERC Act, 2006), red data list species, locally or nationally rare or scarce species.

In order to meet the policy requirements described within the County Council's comments on the scoping opinion, the location and design of the proposed development should be informed by a complete/comprehensive ecological survey.
and impact assessment. It should be demonstrated that the proposed development has been located and designed to avoid ecological impacts. The proposals should include adequate mitigation and compensation proposals to fully offset all unavoidable ecological impacts and to deliver overall enhancement of ecological value. Mitigation proposals should be part of a Farm Conservation Plan on land within the applicants control to ensure the protection of any disturbed species and which would need to provide for long term financial management for the operational life of the site and any subsequent restoration.

DEFRA Circular 01/2005 states that “It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted”. Owing to potential impacts on European Protected species, the determining authority will need to have regard for the requirements of the Habitats Regulations 2010 in reaching a decision.

Natural England should be consulted regarding potential impacts on statutory designated sites and associated species populations.

The assessment methodology should be based on the IEEM EcIA Guidelines. To reduce the degree of subjectivity within the methodology, it is recommended that each habitat type that would be lost, damaged, re-established, enhanced, or brought into favourable management is quantified and clearly mapped to assist in demonstrating that all habitat losses are fully off-set and that overall gains in biodiversity and habitat value will be delivered.

The County Council does not have the expertise to comment on the assessment methodology for marine habitats.

**Landscape matters**

A review of the work carried out to date by the applicant on determining the proposals likely landscape and visual impacts and the methodology used has been carried out.

*Interim Advice Note 135/10 Landscape and Visual Effects Assessment* is being used to determine landscape and visual impacts. This document was developed primarily for use on highway schemes. Whilst it may not be inappropriate to use this document for landscape assessment work on this application an explanation of why the methodology in IAN135/10 was deemed suitable should be provided for clarity.

Practice documents are/will be used by the applicant to inform the assessment of landscape and visual impacts. However, there is no reference to *TOPIC PAPER 6: Techniques and Criteria for Judging Capacity and Sensitivity* (available from Natural England). It is considered that the guidance in this document is crucial to this particular application and its use is recommended.

It should be made clear whether the proposals would be visible from beyond the defined Zone of Visual Influence (ZVI) and what exactly the ZVI represents e.g. area where the development would be visible, area where the development would be a
dominant feature, area where significant landscape and visual impacts would occur, etc. Clarification is necessary as ZVI mapping usually depicts where a proposed feature(s) are visible in the landscape. It should be demonstrated whether the ZVI mapping is different from this.

In paragraph 10.2.6 Sources of desk study information; no reference has been made to the Historic Designed Landscapes of Lancashire Research Study, Phase 1, November 1998, (English Heritage and Lancashire County Council). This omission also occurred on previous applications for underground gas storage in this area. The document should be used to provide baseline information and provide a basis for assessing the likely impacts of the proposals on the setting and character of historic designed landscapes. Assessment of likely impacts in a landscape context is of equal importance to considerations of impacts in an archaeological or cultural heritage context.

The final ES will need a much expanded assessment of the likely landscape and visual impacts of the proposals against the key tests of landscape planning policy. Section 10 SEASCAPe, LANDSCAPE, TOWNSCAPE AND VISUAL AMENITY of Volume 1: Preliminary Environmental Information Report makes no reference to the national planning policy context. In addition the principal test of RSS Policy EM1, no net loss of resources, is not referred to.

Section 10 also makes no reference to the finding of Natural England's regional landscape character assessment. An explanation of this omission should be provided. It is usual for local landscape character assessment to be informed by all known character assessments for the area where the application site is.

The CPRE Intrusion Map North West has been used when considering the site and wider landscape's landscape tranquillity. However the finer grain mapping of this resource also produced by CPRE is not referred to. It is recommended that both forms of data are used in the assessment process.

Where Potential Significant Effects have been identified by the applicant, at this stage, any judgements on their validity be delayed until landscape sensitivity and capacity have been adequately assessed.

To assist with determining landscape and visual impacts the applicant has created new landscape character areas and to which the County Council has the following reservations:

- The absence of formal consultation on the findings of the landscape character assessment reduces its value.
- The character areas do not appear to dovetail well with the existing, published landscape character assessment undertaken by Lancashire County Council.
- No descriptions of the new landscape character areas and their key environmental features have been provided.
- It is not clear what methodology was used to classify and map the character areas and their boundaries.
• No explanation has been provided on why the County Council's landscape character assessment was deemed to be unsuitable for the applicant's assessment of landscape and visual impacts.

A more robust approach would be to identify finer grained localised landscape character areas that nest within the landscape character types/areas classified/described and mapped by LCC.

Although smaller than the Canatxx proposals the proposal still contains a similar scale of development in similar locations within the Wyre Estuary and Preesall to Nateby Study Area. Whilst it is recognised that the design and scale of some of the above ground infrastructure has changed and some of the proposed designs are more sensitive than previous, on the east side of the Wyre Estuary they would still represent a significant visual intrusion in open countryside. In particular, concern is expressed to the scale of the well heads and what justification there is for the size of such during and on completion of drilling operations; to the proposed compressor station that would introduce a significant alien industrial presence into open countryside notwithstanding the limited mitigation that is proposed; the layout and location of well heads in relation to the residential property, recreational facilities including the private golf course and public rights of way and their relationship to the surrounding topography; the inappropriate design of the proposed metering station as part of the interconnection to the national transmission line; and to the proposed security measures to be employed around the facilities and access roads. The County Council is concerned that the impacts of the above ground development associated with the current proposal are greater than those associated with similar previous proposals on the site and which were found unacceptable to the Secretary of State and the County Council. The proposal must demonstrate that there are no alternatives available which would enable the majority of the above ground development being less visually intrusive and in the event there are no alternatives, ensure that the visual impact of such in terms of the above ground infrastructure including the well heads, interconnecting roadways, pumping station and compressor station is minimised in a way that would reduce the visual impact in the area and particularly when seen from the Wyre Way. Details of any enhanced mitigation should be provided along with details of means of construction and origin of materials.

With regard to the development proposals on the Fleetwood peninsula, there should be further consideration of the design of the above ground pumping station at Fleetwood dock to reflect and have regard to the emerging residential, marine / leisure environment that is being developed. The need for the land footprint proposed has not been demonstrated; the size of the land footprint should be the minimum required to facilitate the development and be appropriately landscaped.

Advice has previously been provided that there is a potential conflict with the routeing of the proposed discharge pipeline with the bridleway that is to be constructed to the west boundary of the Fleetwood Waste Water Treatment Works as part of the refurbishment and extension of the existing works. It is necessary to have regard to that proposal and ensure there would be no conflict with the proposed bridleway.
There is also conflict with the routeing of the pipeline crossing the grounds of the Cardinal Allen RC High School and the impact this may have on playing space provision, associated disturbance during construction and the potential for future action and maintenance.

**Archaeological matters**

A review of the documents has been carried out. Chapter 4 of Volume 1: Preliminary Environmental Information Report briefly summarises some earlier assessment and consultation undertaken in connection with previous earlier proposals and a partial walk-over survey, but is not the result of a complete up-to-date assessment. The chapter notes in section 4.2.4 that data from the National Monuments Record (NMR) and the Lancashire Historic Environment Record (HER) was collected in November 2010 and known sites are set out in Appendices 4.1 and 4.2, as well as on Figures 4.1 and 4.2. Comparison with the HER shows that a number of known sites have not been included in the appendices or on the figures. As a consequence Tables 4.1 and 4.2 are incomplete and potentially misleading.

Impacts on known heritage assets should be dealt with in the new desk-based assessment (below) and will need to take into account such sites as the Hackensall Tide Mill (SD 35124659) and New Mill, Fleetwood (SD 32644529). The impact on as-yet unknown heritage assets cannot, by definition, be determined but the potential for such impacts could be summarised as follows:

- **Irish Sea Study Area:** There is limited potential for finds or in-situ remains associated with former dry-land activity of prehistoric and later dates. The potential for natural and semi-natural deposits such as peat or submerged forests which will preserve information relating to past environments is perhaps somewhat higher, such deposits having been identified less than 2km to the south at Cleveleys. There is also a medium potential for shipwreck remains in this area as a significant number of wrecks having been recorded along this coast, many of which are poorly located.

- **Fylde Peninsula Study Area:** There is limited potential for finds or in-situ remains associated with activity of prehistoric and later dates. It seems probable that any remains of prehistoric – medieval dates will have been heavily affected by more recent activity, but that some remains of post medieval and modern dates will be impacted.

- **Wyre Estuary and Preesall:** This area has more potential for sites of prehistoric and later dates, as development has been more limited in this area. Medieval and later farming activities and works associated with earlier brine extraction will, however, still have impacted these earlier sites and left their own remains.

- **Preesall to Nateby:** The line of the interconnector pipeline crosses both Pilling and Nateby Mosses, areas where substantial numbers of prehistoric sites have been encountered in the past. These include settlement sites of Mesolithic date and ritual deposits of the mid- and later Bronze Age. There is considerable potential for further discoveries of these dates to be made along the pipeline route. Reclamation of the mosses in the later medieval and post medieval periods is also likely to have left remains. Surviving peat deposits will also have potential for the
retention of information related to past climate and land use and may be impacted directly by the construction process but also by alterations to drainage patterns resulting in the drying out and destruction of the peat record.

Impacts on the built environment in the Irish Sea, Fylde Peninsula and Preesall to Nateby pipeline areas is likely to reflect that set out in Tables 4.1 and 4.2, but that in the main development area of Preesall the impact seems to be somewhat understated. In particular there will be a major impact on Higher Lickow Farm by the construction of the Security and Support facilities (Sections 2.1.49-50). This impact will need to be assessed in detail.

The above suggests that there is a need for a formal programme of archaeological works, including both desk-based and field investigations, before the full implications of the proposals can be established. It does not, however, imply that the principal of development is unacceptable nor does it show that there are heritage assets present which should be preserved in-situ at the expense of development. What seems more probable is that, following the investigations noted above, that there should be efforts made to minimise the impacts on heritage assets and to mitigate those impacts that cannot be avoided. Such mitigation will need to include investigation and recording before and during construction works.

A phased scheme of investigation and mitigation should, therefore, be developed as part of the development. The development of the scheme and its phasing will of necessity be an iterative process, but it is essential that a comprehensive desk-based investigation is undertaken as soon as is practicable and the results incorporated into the Environmental Impact Assessment (EIA). The scope of this desk-based assessment should be discussed and agreed with the County Archaeology Service in advance, but it should include re-consultation with the HER and NMR, map regression, examination of existing aerial photographic and LiDAR coverage, as well as further background research (Section 4.8).

Where possible targeted field investigations – further walk-over survey, topological and geophysical survey, trial trenching, etc. should also be undertaken and the results submitted with the EIA (Section 4.8.2). Where such field research is not possible, the reasons for this should be given and a programme of proposed investigation set out.

Should a DCO be issued, a phase or phases of further investigation and/or mitigation will be required. The scope of this work should be set out in the EIA and the details agreed with the County Archaeology Service (Sections 4.6.2-3).

Impacts during the pure operation stage of the scheme and in the decommissioning stage are likely to be low or negligible (Sections 4.6.4-5), but this needs to be assessed and confirmed.

Residual effects on heritage assets from the project are likely, but their scale and extent will depend on the nature of the assets themselves, the actual impact of the scheme and the mitigation undertaken. Where possible the residual effects should
be described in the EIA. As a minimum, a method of assessing and reporting on the residual impacts which cannot be quantified at this stage should be provided.

The proposed development will have an impact on known and unknown heritage assets, but that impact is not considered so significant as to require the preservation in situ of assets at the expense of development. A phased scheme of further investigation and mitigation would be required both before and after any consent is granted and before and during any construction works. The post-consent archaeological work may be required either by condition or a separate legal agreement.

**Highway matters**

A review of the submitted documents has been carried out. A revised full transport assessment, addressing the impact and outlining any necessary mitigation resulting from any increase in traffic over and above that assessed as part of the previous development proposal this traffic would need to be undertaken.

The construction phase and the operational phase of the development may have the potential to have an impact on the highway network. At the time of the previous application it was accepted that the level of additional traffic on the overall highway network could be accommodated without capacity issues arising. On the assumption that there will be at least no greater traffic impact that view would remain.

The proposal recognises the potential impact of development traffic on the junction at the A588/Cemetery Lane junction and proposes an access/haul link road to A588, avoiding this junction. This would be acceptable in principle subject to detailed assessment.

The proposed haul road and the route of various pipelines will affect a number of Public Rights of Way and will require temporary closures and diversions. An initial list has been posted and, subject to results of consultations this may require amendment at application stage. At this stage the required closures/diversions seem the minimum necessary but would need to be agreed in advance of the actual works taking place and Orders made under the appropriate Act.

There are a number of access points to various sites associated with the proposed development which may be acceptable in principle but would all require examination in detail at a later stage. Note should be taken that while MfS and MfS2 standards will be acceptable for site accesses in the urban sections of the development, DMRB standards may be more appropriate in the rural area where traffic speeds are higher. Details of all accesses to the highway network should be submitted as part of the DOC application or they could be controlled by condition requiring details to be submitted prior to commencement of development. Wheel cleaning facilities will be required at all site access points to the public highway during the construction phase of the development should consent be forth coming.

A routeing agreement would be required to minimise the risk of construction traffic using inappropriate routes to the various sites. This is considered particularly important in the Hambleton, Stalmine and Preesall areas where there are a number
of narrows lanes which are generally not suitable for use by large vehicles although there are no Traffic Regulation Orders prohibiting their use.

A travel plan would be required to minimise the impact of employee traffic both during the construction and operational stages. At formal application stage, an interim plan the operational stage would be acceptable although a full plan would be required for the construction stage to avoid the development of inappropriate travel patterns in the early stages of the development.

**Other Issues**

**Storage Capacity**

Within the documents submitted at this stage there is an inconsistent approach to how the capacity of the site has been presented and which has been variable between cubic metres and tonnes. This should be addressed in the documents submitted to the IPC as part of the Development Consent Order process.

**Cable Routing**

It is proposed to create two under River Wyre crossings; one for electrical connections to Stanah in the south and one for sea water delivery and saturated brine removal and associated telecommunications equipment in the north. The County Council questions the justification for this and the potential disturbance associated with the electricity connection to Stanah when an alternative may be available on the western side of the estuary irrespective of the route not being in Halite Energy Groups ownership, that the route would be longer and in the absence of any assessment of the presence of contaminated land. The County Council is also concerned to the routing of the electricity cable in such close proximity to existing caverns know to be unstable as referred to above.

**Conditions**

Should the IPC find the proposal acceptable it would most likely be subject to conditions controlling the development for land use planning purposes. The County Council is concerned that the requirements of such conditions may involve expertise on matters that it does not have available expertise, most particularly on geological and hydro geological matters. In the event a Development Order Consent is issued by the IPC subject to land use planning conditions controlling such matters, the County Council would invite Halite to consider the monitoring of such by an independent body provided by Halite as part of a legal agreement. Whilst conditions were considered as part of the previous planning appeal, a new set of conditions will need to be prepared and which could form the subject of any statement of common ground.

**Well being**

Section 2 of the Local Government Act 2000 makes provisions for well being payments to offset the impacts of development projects. In this instance the proposed development will generate visual impact in the countryside and on users of
the Wyre Way and surrounding recreational highway network. Irrespective of the capability of the selected geology and the caveat that expansion of any successful proposal will be considered in the future, there is likely to remain a perceived fear and possible health implications irrespective of any counter case of national need for the underground storage of natural gas. There would remain the realistic possibility of the devaluation of property. Halite Energy Group is invited to consider how they could mitigate such impacts associated with the proposal in the event a Development Order Consent is forthcoming.

Bonds

The nature of the project is that extensive development works are required on both sides of the Wyre Estuary before an underground cavern to store natural gas could be created. It is proposed that such works would be done in tandem with the initial boreholes which would be drilled to identify the suitability of the salt within which the caverns would be created. In the event the development order consent were to be successful provision should be made for the establishment of a bond to provide for the removal of all above and below ground infrastructure in the event the project were not to be successful relative to the extent of development undertaken and for decommissioning of the site at the end of its operational life.

Vehicle Routing Agreement

A routeing agreement would be required to minimise the risk of construction traffic using inappropriate routes to the various sites. This is considered particularly important in the Hambleton, Stalmine and Preesall areas where there are a number of narrows lanes which are generally not suitable for use by large vehicles.

Evacuation

The Preliminary Quantitative Risk Assessment concludes there is no risk of gas leaking from the caverns necessitating large scale evacuation. Whilst it is acknowledged that the proposal would be subject to COMAH and which would minimise the risk of accidents involving dangerous substances and to limit the impact of the proposed development on people and the environment in the event an accident were to occur, it is considered that an emergency plan to provide for any such risk or incident should be provided.

Monitoring of Existing Caverns

Concerns have previously been expressed to the programme of monitoring for the former brine wells to ensure their integrity and stability. Reference is made to such in the section on geology above. This concern has been demonstrated in the recent failure of well heads. There are no current planning requirements to undertake any programme of monitoring or provide the results or an action plan for such in the event instability is identified. Whilst some of the responsibility for such may fall to the Health and Safety Executive, Halite are invited, as part of the submission for a development order consent, to agree to an ongoing programme of monitoring of the existing brine wells, the submission of the results of such programme and any action
plan to be implemented in the event any instability is identified or in the event of brine wees, cavern or wellhead failure to ensure stability or remedial action in the event of failure.
Hi David

Thanks for your message. Unlikely I can respond by the end of the week, as I have deadlines today and then I'm not in until Monday.

Please find below my brief comments on the PEI report:

Dear Mr Budinger

Thank you for consulting the Wildlife Trust in connection with this application. Having studied the information supplied as it relates to biodiversity interests, I have the following two brief comments to offer at this stage:

1. To comment fully on any likely biodiversity impacts arising from this proposal, we await the full Environmental Statement containing the additional information agreed during the conference call of 24th January 2011 and subsequent email correspondence with Hyder Consulting (UK) and fellow environmental consultees (Lancashire County Council, RSPB, Natural England, Environment Agency. Section 6.8 (page 104-107) refers.

2. The in-combination/cumulative effect with other known major developments (proposed Wyre Power Station and Cuadrilla Shale Gas Exploration - should it proceed to commercial production) will be an important consideration.

We await the next stage in the IPC process.

I may not have anything further to add but I feel that I should at least check.

Kind regards

Kim
-----Original Message-----
From: David Hoare
Sent: 13 July 2011 10:14
To: Kim Wisdom
Cc: Andrew Saunders
Subject: Preesall Underground Gas Storage Facility - Ecology and Nature Conservation Assessment Methodology

Hi Kim

Responses received to the Environmental Impact Assessment Scoping Report require us to consult with yourselves on the proposed assessment methodology for the Ecology and Nature Conservation chapter of the Environmental Statement.

The proposed methodology for the Ecology and Nature Conservation assessment is outlined in the Environmental Impact Assessment Scoping Report and in the Preliminary Environmental Information Report, which you should have copies of.

The assessment methodology proposed for the terrestrial element follows the IEEM EcIA Guidelines. We are proposing to follow the IEEM Marine EcIA Guidelines for the marine assessment.

Could you review the proposed methodology outlined in these two documents and respond to me with any comments please? Due to the tight programme deadlines, we are keen to gain agreement on the proposed methodology as soon as possible. Therefore, if you could respond by the end of this week, that would be much appreciated.

We already have a copy of your response to the Environmental Impact Assessment Scoping Report (we are awaiting your response to the Preliminary Environmental Information Report). If you feel that there is nothing more to add to these responses in terms of comments on the proposed assessment methodology and your are happy with our proposed approach, then please respond to that effect.

Many thanks

David

David Hoare
Principal Consultant - Environment
Hyder Consulting (UK) Limited
21st September 2011

John Whitham
RFCA Secretary
Ribble Fisheries Consultative Association

Dear Mr Whitham

Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire

Thank you for your letter of the 27th July 2011 in response to our Project.

The discharge will have an impact on marine organisms in the vicinity of the outfall, however the assessment has demonstrated that it would not be significant. The low tide (ie when water is approximately 4 metres depth) salinity levels at the surface immediately above the outfall are predicted to be between 32 and 38 parts per thousand. By way of illustration saturated brine is 260 parts per thousand and normal effluent concentrations are expected to range from 150 – 250 parts per thousand. Salinity in the UK generally varies between 34 and 36 parts per thousand. Therefore the worst case is that in the vicinity of the outfall at 2.3km from the shore the surface levels would be similar to those in UK waters. The EA has already granted consent to discharge brine into sea. Halite has undertaken a substantial amount of work to understand the offshore environment and potential impacts of discharge (including surveys of marine life/computer modelling). The following specific standards would be complied with:

• Plume concentration (discharge area) should not exceed 40ppt a 50m from discharge. Halite would achieve 40ppt at 50m, with possible exception of 1-2 hours at low water slack on spring tides where it would reach 40ppt at 60m. However, the cavern creation process is unlikely to produce the theoretical peak concentration used in the modelling and the washing process could be managed to avoid this situation.
• Salinity would not exceed 10% over ambient at 500m from discharge. 10% would be achieved within 250m of discharge outfall.
• Plume should not impact on local shoreline or Morecambe Bay. Impact of activity on the shoreline and Morecambe Bay are judged to be negligible, and within normal spatial and temporal variations in the area.

The Environmental Impact Assessment will contain further details of marine surveys and assessment of the impact of the proposed Project on the marine ecology.

The recent incident at Brine Well 45 has been the subject of an extensive investigation and a full report of this incident will be made available on our website in due course. We are carrying out remediation to the land in the vicinity of the wellhead and we were able to contain this to some extent by prompt action as soon as we were notified of the leak. There are some 120 wells on the site which were created by ICI and our maintenance and monitoring programme is intended to safeguard the land and environment which is, I think you would agree, in everyone’s interests.

Yours sincerely

BRUCE GIBSON
Senior Project Manager
27th July 2011

K. Budinger Esq.,
Chief Executive,
Halite Energy Group,
Unit 5
St. Georges Court,
Kirkham,
Preston.
Lancashire.
PR4 2EF

Dear Mr Budinger,

Further to the telephone call from your office and the subsequent letter from yourself dated 25th July which arrived yesterday, I am at a total loss to explain the non-receipt of the letter I sent in June. One possibility is that you are looking under the wrong name which should be Whitham not Whitman.

In that letter I re-iterated the objection our Chairman (C.D. Hinks) submitted in 2009. Also, I stated that as far as the Ribble Fisheries Association is concerned we continue to have very serious concerns about the proposed discharge and its impact upon the Irish Sea, especially on the spawning habitat and the migration routes of endangered species.

We have spoken to the E.A. concerning the discharge into the sea very close to a protected area and sought assurances from them that there would be no impact. Regrettably they have, as yet, been unable to give such assurances and so we object to the discharge of this quantity of saturated solution and at such temperatures.

As I also indicated to your colleague, we do not own any land and as such we are unable to supply any details in this respect. We do have concerns about the proposals relating to the safety of the area especially after the accident earlier this month and so would totally support the letter you received from the “Protect Wyre Group” dated 21st June from Ian Muirroy and the position adopted by the Group on this issue. If such an incident is sufficient to cause disruption on land what would the impact be at sea; probably where it would be undetected for a considerable time when the damage would already be done. The precious habitat in the Irish Sea is irreplaceable and would, in all probability, never recover.

Furthermore, we are concerned at the effects on the quality of bathing water off the Fylde coast and whether it would then meet the WFD standards.

Yours faithfully,

[Signature]

John Whitham,
RFCA Secretary
Dear Sirs,

Ref: Application No 02/09/0159 Creation of an underground gas storage facility by CanaTex

I wish to register our objection to the above proposal to store natural gas under the River Wyre estuary. How many more times will this company bring forward this scheme despite being rejected in the past by everyone from the Town Parish to the Secretary of State via a Public Inquiry? Nothing has changed in their application except this time they propose excavating new caverns instead of using old ones! The resulting brine, estimated at over 45 million tonnes, would be pumped into the sea off Rossall.

The effects of this amount of concentrated brine going into the sea would be dramatic to the environment and sea life in the vicinity. The idea that this will somehow be localised to a small area of the sea bed is nonsensical since it does not take into effect the sea currents at sea floor level nor the changes in currents caused by the variations in temperature in such a shallow sea. It is one thing to try and establish currents at the surface, totally different to do so at the sea floor level.

Our concern is for all fauna and flora that could be affected by this salt including damage to the food chain for a range of marine life, but most especially we would wish to draw attention to the potentially damaging effect upon the environment of such a concentrated salt solution, especially at temperature, and how it would decimate the natural marine life in the area. The tidal flows in the Irish Sea would not encourage dissipation, as might be the case in the Atlantic, but rather mean an increased concentration in the whole of the Irish Sea and so a “marine desert” could be created.

This would have a disastrous effect on the shrimp and shellfish of the area – i.e. the food chain for other species and would, in turn, ruin the livelihood of many people who have depended on the sea for generations. Similarly, there would, we are convinced, be a detrimental effect on the tourist industry in the north west as the purity of the sea water along the coast would once more be compromised. The hard work of recent years to improve water quality on our beaches would once again be put in jeopardy by the perceived needs of industry. Indeed, the fact that such an application has now to be submitted clearly indicates that the whole concept of using the salt mines for gas storage is ill conceived and not completely thought through.

We would however draw attention to the potentially damaging effect upon the wild Atlantic salmon. The wild Atlantic salmon is the tenth most threatened of all species in Europe and its decline is well documented and internationally recognised. The rivers of the North West of England are some of the most important for the species. Furthermore, many of the rivers of the North West do not have self-sustaining stocks of these fish. Salmon breed in rivers and always return to their river of birth. Upon return from the Northern Atlantic to breed they are known to detect their parent river by organoleptic (smell, salinity etc.) sensing. In the coastal area near the river’s estuary the salmon’s physiological functions change to accommodate living in the fresh water of their breeding river. Young salmon leaving the parent river for the ocean part of their existence go through the reverse process. The natural stable coastal and estuarine salinity levels are therefore absolutely critical for the continued existence of the salmon species in the North West rivers.
In addition, another salmonid, the sea trout, is an important sea species that does not leave the coastal areas other than to breed in the rivers of the region. This fish also undergoes the same physiological changes as the salmon prior to moving into fresh river water in order to breed and the reverse when returning back to the sea. Again the North West rivers are important for this species.

These processes of physiological adaptation are only capable of dealing with the very limited salinity ranges, which occur naturally. Unnaturally increased salinity levels and salinity gradients will significantly interfere with the salmon's ability to migrate to their breeding rivers and for the young fish to enter the sea. Furthermore, even though the discharged salinity may seem relatively localised affecting the Rivers Lune and Wyre it will also, since the salmon use distinct sea routes from the North Atlantic, affect the salmon populations for most of the rivers of the North West and perhaps even further southwards.

We consider that this project would have a disastrous affect on these very important, and in the case of the wild Atlantic salmon, threatened species.

The problem with the environment is that once it has been affected it can take many years to recover, assuming that it can. Man has a nasty habit of ruining the environment and then belatedly realising what he has done when it is too late. Sadly the Environment Agency is not very good at taking action to forestall environmental disasters and tends to react after the event. The North West has some of the best marine life and salmon and sea trout fisheries in the country and this project would place the 45 million tonnes slap bang in the middle of them, and onto one of the key routes of passage for migratory fish. On environmental grounds alone this project should not be allowed to go ahead.

Much has been done over past decade to ensure that the Ribble has maintained its runs of migratory fish through habitat work, catch and release propagation programmes etc, which has proved success in that the Ribble has joined other rivers in the north west as category one migratory rivers in the UK. Indeed, the Ribble is unusual in that it supports both salmon and sea trout migrations. These fisheries represent considerable investment and have a value in excess of £15m. Add to that the increased value to the North West economy and many more millions are added. Therefore, on economic grounds we feel the project should not go ahead.

Let us look at the health and safety aspect of this project. Canabox naturally says that "maximum safety will be ensured in all aspects of the construction and operation phases". Plainly they could hardly say anything else but equally plainly this is an operation with a high risk factor. There are numerous examples of failure of such promises; Abbeystead, Buncefield and Flixborough spring to mind. Too many people live in close proximity to this proposal for it to be acceptable. It is documented that pressurised gas can travel up to 10 miles underground from its source as it tries to surface with all the possible consequences of fire and explosion. There are numerous abandoned salt mines within close proximity of the project and there is a danger of the gas escaping into them. One of these caverns was used for the storage of toxic mercury sludge. The thought of this escaping into the environment is not a thought to contemplate.

Canabox, state in their application that the precise location and configuration of each cavern cannot be identified at this time. They further state, that if a cavern does not pass the tests they would attempt to determine the reasons for failure; that observed faults in the sea bed appear infilled and are almost certainly gas tight and that the overburden is likely to be gas tight. Words such as "if", "attempt", "almost", appear", "likely" are not words that inspire confidence. Canabox has had over ten years to evaluate this site and to prove the site's safety. In the process they should have produced irrefutable scientific evidence that it meets the criteria for safe gas storage. They have failed to do so and the bottom line seems to be that they wish to make money and that people, nor the views and the environment do not matter. This application should be firmly rejected.

Yours faithfully,

C.DHinks Chairman RFCA
My comments are attached.

Regards,
ian Wardle

Mr Keith Budinger
Chief Executive
Halite Energy Group

Date: 22nd August 2011

Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire

Dear Mr Budinger,

Having read through your very well presented consultation documents I have the following comments to make.

The Preliminary Environmental Report Volume 1 section 8 clearly identifies in table 8-9 the nature of effects to all Public Rights of Way in the Fylde Peninsula Study Area and the Wyre Estuary and Pressall to Nateby Study Area.

Table 8-10 then provides descriptions of the impact this development will have on all public rights of way in the above study areas with details on the steps to be taken to ensure that this impact is minimised. Whilst I am satisfied that great thought and consideration has been given to the impact on public rights of way I would like to bring to your attention my concerns regarding the following.

Clear diversion signs need to be provided on all public rights of way affected including FP12. The report states that users would have to find an alternative route around the works. Whilst I accept that users will most likely be using roads to walk around the works I do feel it is important that diversion signs are still provided here.

Regarding the United Utilities Bridleway the report states that the natural diversion for users would be to use Jameson Road - again diversion signs need to be provided.

Regarding the Wyre Way FP 11 where it is anticipated that the disruption will last for 2 months. Is it not unreasonable to provide a temporary crossing point over the haul road during this 2 month period? I have seen these pedestrian crossings used effectively in Hong Kong. I hope you can look upon this request favourably.

Yours sincerely,

ian Wardle

Fylde Ramblers
Mr Bruce Gibson  
Senior Project Manager  
Halite Energy Group  
Unit 5 St Georges Court  
St Georges Park  
Kirkham  
PR4 2EF

Dear Mr Gibson

I am in receipt of your letters, and would advise that we do not have a committee meeting until Wednesday 5th January 2011, when I will present them for discussion.

Our previous contact with Canatexx has always indicated that our interest is with the footpaths within the area of the proposed underground storage facility. These must be maintained into the future. If any work were to involve a public right of way, then temporary diversions would have to be agreed with the Wyre Borough, who would then advise us for comment. Any permanent diversion or closure would have to be agreed with Lancashire County Council, who would advise us for comment.

In would say that to date we have had no cause for complaint, and have found that the integrity of the footpaths has been well maintained.

We do have an interest in the countryside and the wildlife therein, but these aspects will be covered by other bodies within your consultation register. Likewise all the technical details and general concerns of the population within the area, some who are members of the Ramblers, will be dealt with by the other groups.

I trust that this will be of help to you. If the committee wish to make any further comments then I will let you have these after our meeting.

Yours faithfully

[Signature]

David J Stokes  
Group Vice-Chairman

30th December 2010
5th July 2011

Mr I Mulroy
Chairman, Protect Wyre Group
Village Farm

Dear Mr Mulroy

I’m writing in response to your letter of 28 June regarding gas fired power stations and hope that the information provided below is sufficient to answer your queries.

The table below shows the CCGTs located within around 100 miles of Preesall that are currently in operation.

<table>
<thead>
<tr>
<th>Station Name</th>
<th>Capacity Electricity</th>
<th>Capacity Gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roosecote</td>
<td>229</td>
<td>0.98</td>
</tr>
<tr>
<td>Rocksavage</td>
<td>810</td>
<td>3.47</td>
</tr>
<tr>
<td>Connah’s Quay</td>
<td>1,380</td>
<td>5.92</td>
</tr>
<tr>
<td>Deesside</td>
<td>401</td>
<td>1.72</td>
</tr>
<tr>
<td>Teesside</td>
<td>2,028</td>
<td>8.70</td>
</tr>
<tr>
<td>Keadby</td>
<td>735</td>
<td>3.15</td>
</tr>
<tr>
<td>Goffa Dev Centre</td>
<td>395</td>
<td>1.69</td>
</tr>
<tr>
<td>Staythorpe</td>
<td>1,700</td>
<td>7.29</td>
</tr>
<tr>
<td>Derwent</td>
<td>150</td>
<td>0.64</td>
</tr>
<tr>
<td>Immingham</td>
<td>1,016</td>
<td>4.36</td>
</tr>
<tr>
<td>West Burton</td>
<td>435</td>
<td>1.87</td>
</tr>
</tbody>
</table>

The above MW data is taken from the National Grid Seven Year Statement 2011 which you can view through the web link below:
http://www.nationalgrid.com/uk/Electricity/SYS/current/
We have converted MW output into MCMU using an assumed electrical efficiency of 53%. Additional plant is being built at West Burton and consents are in place for new CCGTs at Partington and Carrington near Manchester.

At present, around 40% of UK electricity is generated from using natural gas in CCGTs. These plants were built between 1992 and 2010 and are often located where there were coal fired power stations due to the proximity of these sites to the electricity grid. EU emissions regulations mean that a significant number of coal fired generation plant will close by 2020. The Government is introducing reforms to the electricity market which will help the development of nuclear power stations such as a new one at Heysham. However, these new nuclear facilities are broadly replacing old nuclear power stations that are being closed as they reach the end of their useful life. Offshore wind developments are also being promoted and it is estimated that around 20 GW of this plant may be build by 2020. Unfortunately, the load factor of offshore wind is around 30% and so for 70% of the time an alternative source of electricity generation will be required. It is generally accepted that new, flexible gas fired generation plants will be built. This will partly replace coal, partly replace older less efficient and flexible gas CCGT and partly provide new electricity capacity which is needed to meet growing demand.

The table below from the National Grid Seven Year Statement details the significant number of new CCGTs that are being built. It lists the changes in the contracted capacity of generation which are contracted to commission, over the period from the winter peaks of 2010/11 to 2017/18 inclusive.

<table>
<thead>
<tr>
<th>Licensee</th>
<th>Plant Type</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGET</td>
<td>CCCT</td>
<td>3150</td>
<td>750</td>
<td>1795</td>
<td>5021</td>
<td>1520</td>
<td>4000</td>
<td></td>
</tr>
<tr>
<td>NGET</td>
<td>IGCC with CCS</td>
<td>-</td>
<td>800</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>NGET</td>
<td>Wind Offshore</td>
<td>1208</td>
<td>651</td>
<td>1338</td>
<td>1469</td>
<td>2204</td>
<td>2324</td>
<td>2105</td>
</tr>
<tr>
<td>NGET</td>
<td>Wind Onshore</td>
<td>299</td>
<td>-</td>
<td>176</td>
<td>184</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>NGET</td>
<td>Biomass</td>
<td>-</td>
<td>754</td>
<td>879</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>NGET</td>
<td>Woodchip</td>
<td>-</td>
<td>350</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>NGET</td>
<td>Nuclear EPR</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3340</td>
</tr>
<tr>
<td>NGET</td>
<td>Tidal</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>SHETL</td>
<td>Wind Offshore</td>
<td>366</td>
<td>165</td>
<td>319</td>
<td>1316</td>
<td>44</td>
<td>114</td>
<td></td>
</tr>
<tr>
<td>SHETL</td>
<td>Wind Onshore</td>
<td>-</td>
<td>-</td>
<td>400</td>
<td>1755</td>
<td>420</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>SHETL</td>
<td>Tidal</td>
<td>-</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPT</td>
<td>Wind Offshore</td>
<td>649</td>
<td>359</td>
<td>782</td>
<td>113</td>
<td>274</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPT</td>
<td>Wind Onshore</td>
<td>-</td>
<td>-</td>
<td>450</td>
<td>-</td>
<td>400</td>
<td>2225</td>
<td></td>
</tr>
<tr>
<td>SPT</td>
<td>Biomass</td>
<td>52</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For reference, I have enclosed an A4 map which illustrates the locations of all UK power stations, including CCGTs. Also enclosed is a diagram showing both existing and proposed CCGTs within around 100 miles of our proposed Project location at Preeall.

You may be interested to read a paper entitled 'Contributions of Flexible Energy Resources for Renewable Energy Scenarios', written in March of this year, which describes one CCGT manufacturer’s approach in relation to flexible, high efficient CCGTS. You can find this online via the following link:
All of the CCGT facilities listed above either are or would be supplied from the National Transmission System (NTS) and not directly from our proposed Underground Natural Gas Storage facility at Preesall. However, if it were to go ahead, our Project would be able to quickly respond to CCGT operators by providing gas to the NTS when needed.

Whilst the NTS has a certain amount of flexibility, it still requires additional gas that is closer to the power stations. This is due to the fact that gas in the system only travels at around 30 mph. For example, gas entering the NTS at Milford Haven in Pembrokeshire (made from Liquefied Natural Gas) would take between 12 and 24 hours to get to CCGTs and it would take more than 24 hours to travel to the St Fergus plant which is 60 kilometres north of Aberdeen. When you compare this to the 1-3 hours it would take for gas stored at our proposed Project in Preesall to make the journey the advantage of the location is clear.

As always, please don’t hesitate to get in touch with any further queries which I will be happy to answer.

Yours sincerely

Keith Budinger
Chief Executive
Halite Energy Group
Keith Budinger
Halite Energy Group
Unit 5 – St George’s Court
St George’s Park
Kirkham
PR4 2EF

28th June 2011

Dear Mr Budinger

Gas Fired Power Stations

At one of the recent meetings between Halite and PWG, it was stated that the proposed Preesall gas storage project would be key to supplying the 10 gas fired power stations that would be within 100 miles of Preesall when the power generated from wind farms was unable to meet demand.

Would you kindly list the names and locations, either actual or proposed, for these 10 gas fired power stations and also offer any indications of the anticipated volumes of gas that might be required over any set period as a backup supply. The presumption is that any gas required by these 10 power stations would be delivered from Preesall via the existing NTS – is this assumption correct?

I look forward to hearing from you in due course.

Yours sincerely

Ian Mulroy (Chair PWG)
23rd June 2011

Dear Mr Mulroy,

Thank you for your comments in relation to the recent regrettable and unexpected brine well collapse.

In response to your concerns about site access and movement I can assure you that maintaining the safety of the site and those local residents and contractors in the vicinity is of the utmost importance to us. I strongly refute the suggestion that my team and I have adopted a cavalier attitude in response to this unexpected event when, as you know, we have been working with, amongst others, the relevant agencies listed in the press release you received on 21st June to quickly to limit the impact of the incident on the health and safety of local residents, animals and wildlife.

Before arriving on site on Saturday morning our lead geologist checked data on the depth and diameter of the cavern under the collapsed wellhead along with those in the surrounding area. Once on site he then carried out an inspection in the area in a 50 metre radius around the wellhead looking for signs of surface movement of which there was no indication. Quick action was taken to erect temporary fencing around the affected area and caution was given and heeded against any rapid introduction of plant equipment and men adjacent to the wellhead until the situation had stabilised and a full risk assessment could be undertaken.
We were, however, able to proceed with the clean-up operation at distance from the failed wellhead. In digging a catchment pit to temporarily contain the brine we acted in compliance with the Environment Agency. Close monitoring of ground levels and stability were and are ongoing, helping us to progress with the very necessary environmental operation needed to contain and mitigate the impact of the incident on public health and that of local animals and wildlife.

Further assessments were undertaken on Monday which showed that the wellhead had settled by about 30 millimetres. On the basis of the evidence it was concluded that short-term observation of the failure could be undertaken from within the safety fence without putting anyone in danger.

A perimeter fence has now been erected and twenty-four hour security established restricting access to the site as, following the initial and vital environmental remediation work, our focus has now turned to establishing exactly what caused the wellhead to fail. The area is being supervised under Construction Design Management regulations and will continue to be so for the purposes of our investigation and, as appropriate, any restoration work. We are now confident that a scaffold contractor can come to the site in order to erect a platform from which we will be able to carry out investigative work. This will not go ahead until my team and I are confident that we have an agreed approved Safe System of Work to follow. Safety will remain paramount throughout and I am confident that the investigation will ascertain the cause of the brine well collapse in the next few weeks.

I have asked who amongst the team had the conversation to which you allude on safety procedures. Without further details I am unable to comment on this other than to re-iterate Halite’s absolute commitment to safety, inform you that full incident documentation has and continues to be compiled and highlight the fact that, from the beginning of our response, safety procedures have been followed.
We are also in contact with the Manchester office of the Health & Safety Executive. Be assured that, as I have already stressed, we are committed to our responsibilities as a landowner and will use the information regarding the cause of the wellhead failure discovered in our forthcoming investigations to determine our next course of action.

Yours sincerely

Keith Budinger
Chief Executive
Halite Energy
Dear Mr Budinger
Thank you for the update
I have attached a formal response to you (Halite) about this incident and made verbal representations to the HSE
Would you kindly furnish me with the names of the individuals concerned from HSE, LCC and Wyre Borough
Thanking You
Ian Mulroy

halite budin...doc (252 KB)
Keith Budinger
Halite Energy Group
Unit 5 – St George’s Court
St George’s Park
Kirkham
PR4 2EF

21st June 2011

Dear Mr Budinger

Multi-Agency Press Release

Thank you for forwarding the press release to me which I will circulate immediately.

However, I must take this opportunity to express my greatest concerns about the way in which your company and the contractor, Brough Construction, are conducting the clean-up operation with specific reference to site access and movement across the site.

Halite has gone to great lengths to assure the public that there is no risk from the brine or solids that were expelled from the brine well, although this perhaps seems at odds with these solids being buried in what appears to be a lined trench.

What is more alarming is that after 4 days any signage warning the public to keep away is non-existent except for a single sign, on the opposite side of the site from which any public access might be made, on the security fencing surrounding the errant brine well.

Knowing the history of the brine field, which is publicly available and well documented, the frailty of this area around BW45 was specifically mentioned in our earlier meeting with Halite when we discussed the wisdom of you placing your site access road there, and I have to suggest that the potential for imminent collapse cannot be ruled out until a full geological report has been produced into the cause of this blow out and even then I suggest that it will be, at best, a guess.

I fully accept that a clean-up operation will, in the fullness of time, have to be undertaken but as there is no immediate risk to the public then I suggest that now is not the best time.

Chairman: Ian Mulroy,

www.pwgroup.org.uk email:
Judging by the tracks marks in the field, the excavator and dumper drivers would appear to have a remit to roam freely and indeed they have passed very close to BW45 with their machinery.

I'm also led to believe that you personally invited the press or media onto the field to see the result of the blowout for themselves and if this is true I can only describe it as a foolhardy action. I don't think anyone ever has the right to place people in danger, no matter how interested they may be or however useful they might be to fuelling the PR spin (for which you can read damage limitation exercise). Without a full explanation of what's actually happened to cause this blow out no-one can know what dangers lurk unseen below the site.

I also understand that a conversation between your people and a local resident took place and upon an enquiry being made about documented safety procedures for working in this dangerous environment and how you were handling the pressure issue associated with the blow out it appears that no safety procedure has been documented or implemented which doesn't fit well even within the most basic safety practices.

PWG has long upheld the opinion that Canatxx and now apparently Halite have a 'Titanic' and cavalier attitude to the potential dangers that exist and seem to be in denial of anything that might delay or thwart the proposed project. I only hope for yours and Halite's sake, but more importantly the local residents' sake, that a collapse doesn't occur in or around this uncontrolled environment and that fatalities don't occur as a result. The apparent undue haste and disregard for safety can only add to the potential for disaster.

In closing I therefore suggest to you that you consider ceasing all but the most necessary peripheral operations until the cause and effect of this incident are fully known.

I have also lodged my concern with the HSE in Manchester who seem to be the local contact point for this incident.

Yours sincerely

Ian Mulroy (Chair PWG)
Mr I Mulroy (Chair, PWG)
Village Farm

Dear Mr Mulroy,

I'm writing in response to your letter of 2\textsuperscript{nd} June. If you would like to further discuss the answers below or any other issues with me and the team, please do not hesitate to get in touch.

As requested you will find enclosed:

- A document detailing grid reference for each of the proposed cavern locations
- Tabular data for all the boreholes which reach the salt bed
- Copies of the latest geology maps produced by Mott Macdonald in A3 format
  (the resolution of the documents does not warrant larger scale drawings)

Taking your three questions one by one:

a. **E1 borehole data**

As evidenced from geophysical profiles undertaken within BHP1 situated 1.3km to the ENE of E1, the interbeds within the northern reaches of the Preesall Basin are predicted to thin. The mudstone interbeds within E1 are consistent with thinned mudstone beds BGS5 and BGS4. Lower beds are considered to have been faulted out by the Burn Naze fault.

b. **Faults in the section across caverns 13 and 19**

The faults are correctly detailed on the Sections. However, the curved strata surfaces on the approach to faults have been obtained directly from 3D contoured surface models without correction for fault displacement. This only affects the immediate environ of the fault plane and so does not impact on the hazard zonation or cavern design.
In reality, it may be anticipated that the strata juncture with the fault zone will be more angular. In case of Section 13 and 9 this partially accounts for the discrepancy in fault displacement shown at the top and bottom of the salt body, the remainder of displacement will be a function of faulting being syn-sedimentary.

c. Distance of the points used to interpolate 3-D geology in areas beyond seismic lines

The 3-D geological model was constructed by correlating boreholes and seismic link pick points along a network of 44 cross-sections constructed in orthogonal directions across the modelled area with increased cross-sections constructed within areas of sparse data. Triangulated nodes were then created by iterative loop-tying of the cross-sections and boreholes/seismic line picks, resulting in a nodal 3-D grid spacing of 10m.

Typically, interpolation over the western and northern areas beyond borehole or seismic data is of the order of 500-750 metres. The British Geological Survey modelling approach described above is accepted industry modelling practice. This, combined with conservative positioning of bounding faults is considered to adequately reduce uncertainty at planning stage.

I hope the information contained within this letter has provided clarity on the issues raised but, as already stated, your further comments and questions are welcome.

Yours sincerely,

Keith Budinger
Chief Executive
Halite Energy
Dear Mr Budinger,
My system recorded your email receipt re the minutes after I had left to go on holiday
Today is first day back with a stack of emails to answer so I'll respond formally over the weekend or very early next week
Regards
Ian Mulroy

From: keith.budinger@halite.net [mailto:keith.budinger@halite.net]
Sent: 09 June 2011 21:28
To: Ian Mulroy
Subject: Re: PWG - Geology request

Dear Mr Mulroy,

I am writing to let you know our response to your latest questions will now be next week. I apologise for the delay however please be assured you will receive a full reply.

Also on another matter, could I please ask if you were OK with the minutes from our first meeting?

If so I have a question to ask. The CLP has asked Halite for a copy of the minutes from our meeting.

I have no objection to the CLP receiving them but wanted to ask you first if you had any objection before I went back to them.

Yours sincerely

Keith Budinger

Sent from my BlackBerry® wireless device

---

Dear Mr Budinger,
I have attached a letter, as requested, formally requesting additional geological information plus I've added a few more queries for your team's consideration
Thanking you
Regards
Ian Mulroy
Dear Mr Budinger

Thank you for the offer of extending the Community Consultation for the Protect Wyre Group until the 16th June

I think we are now at the stage where we have to decline your extended time offer, appreciative as we were, and to let you get on with your application preparation thus I suggest that we consider the community exercise closed (time expired)

I will write to you later today or in the morning to request some specific geologic information arising from the meeting at your offices with Motts - we have had other PWG meetings on this subject which raised yet more questions but these will wait for another day

I think the best way forward is for us to read whatever you send we will then further evaluate our questions to see what is answered or remains to be answered and then maybe suggest a further meeting if deemed appropriate by both sides

You already have our comments of Health & Safety so no further meetings are requested at this time on this matter

We are continuing to evaluate other matters relating to seismic activity (as I know you are) and the brine discharge off Rossall Point and will write to you on these issues in due course (again, if timely and appropriate)

Regards

Ian Mulroy
From: "Ian Mulroy"
Subject: PWG - Geology request
Date: 2 June 2011 20:17:28 GMT+01:00
To: "Keith Budinger" <keith.budinger@halite.net>
Cc: "HOWARD PHILLIPS"

Dear Mr Budinger
I have attached a letter, as requested, formally requesting additional geological information plus I've added a few more queries for your team's consideration

Thanking you

Regards

Ian Mulroy

halite budin...doc (248 KB)
PROTECT WYRE GROUP
Fleetwood Action Group       Fleetwood Civic Society
Fleetwood Chamber of Trade & Commerce
Over Wyre Action Group
Poulton Historical & Civic Society    Poulton Residents Association
Thornton Action Group
Supported by:
Ben Wallace MP ~ Eric Ollerenshaw MP ~ Paul Maynard MP
Brian Simpson MEP

Keith Budinger
Halite Energy Group
Unit 5 – St George’s Court
St George’s Park
Kirkham
PR4 2EF

2nd June 2011

Dear Mr Budinger

Additional Geological Information

Further to our recent meeting at your offices, there were three instances where Howard Phillips, PWG’s Geologist, said that he needed more information to make his value judgements and PWG was asked to formally write to you with this request.

The three items are:-
1. Grid References for each of the cavern locations
2. Tabular (top and bottom of salt) data for all the bore holes which reach the halite bed
3. Copies of the latest geology maps produced by Mott Macdonald (larger than A4 – pref A1 or A2)

We have three additional questions which are:-
a. Does the E1 Borehole data show marl layers which are consistent within the upper strata of the halite bed?
b. Are the faults correctly shown in the section across caverns 13 and 9?
c. What distance apart are the points used to interpolate the 3-D geology in those area beyond the seismic lines?

Yours sincerely

Ian Mulroy (Chair PWG)

Chairman: Ian Mulroy,

www.pwgroup.org.uk  email: |
January 10th 2011

Re underground gas storage facility at Preesall

'The company behind the project, Halite Energy Group Limited (‘Halite Energy’, previously known as Canatxx), said that it will not appeal against Lancashire County Council’s decision to turn down the planning application in January this year, but stated that it is preparing a modified scheme that will be submitted'.

Dear Sir

We have considered the information in your letter and on the Halite website. I write to express the deep concern of the Poulton-le-Fylde Historical & Civic Society regarding the proposed plans.

A The proposal is unacceptable in the light of previous experience and evidence world wide of similar projects.

B There is potential for extremely adverse effects on the neighbouring densely populated areas

C Over a period of nine years, two previous planning applications and a public enquiry support the view that there is an overwhelming rejection of this project by the population of the Fylde

Yours faithfully

Christine Storey
Hon Secretary
Poulton-le-Fylde Historical & Civic Society
From: "Stephan Atlas"
Subject: Gas storage Proposal Lance
Date: 4 May 2011 14:28:57 GMT-01:00
To: <site001@haute.net>, <community@haute.net>

Dear Sirs,

Thank you for the various consultations on this proposed development.

The NWIFCA has no land ownership issues to report.

Please could you confirm that no formal application has been submitted as yet so all consultations to date are informal? I wish to inform the Authority that it will be formally consulted when consent applications are submitted. Is this correct?

You will be aware that the NWIFCA strongly objected to similar proposals from CANATAXX a few years ago so I would expect members to be disappointed to see this proposal raised again. Concerns centred on potential damage to sensitive marine and estuarine habitats from brine discharge.

Yours sincerely
Mr. Bruce Gibson,
Senior Project Manager,
Halite Energy Group,
Unit 5, St. Georges Court,
St. Georges Park, Kirkham,
PRESTON,
Lancashire, PR4 2EF

6th January 2011

Thank you for sending us a copy of your “Proposed application to the Infrastructure Planning Commission for an underground gas storage facility at Preesall”.

We are shortly to become the North Western Inshore Fisheries & Conservation Authority and with our newly increased environmental mandate your project is of great interest to us.

We look forward to taking part in the formal consultation and have a particular interest in the possible environmental effects of the proposed shallow water brine discharge into the sea off Rossall.

Yours faithfully,

J.N. Andrews

Dr. STEPHEN ATKINS
Chief Executive
Halite Energy Group
Unit 5 St Georges Court
Kirkham
PR3 2EF

Dear Sir

PROPOSED APPLICATION FOR UNDERGROUND GAS STORAGE FACILITY AT PREESALL

15th December 2010

Thank you for your letter dated 26th November 2010 regarding the above proposed planning application.

The views of the Fylde Coast Bridleways Association are the same as they have been for the previous applications submitted by Canatxx. The geology of the Preesall/Stalmine salt deposits would not support the safe storage of gas. There are too many faults which render the area unstable as has been demonstrated in the areas where work has previously taken place.

The Fylde Coast Bridleways Association absolutely opposes any application to store gas in the Preesall/Stalmine salt deposits.

Yours faithfully

Rosemary Hogarth
Fylde Coast Bridleways Association
Dear Mr Gibson

Thank you for your letters dated 26th November and 23 December respectively.

Fleetwood Civic Society still has major concerns about the overall safety of this project and wish to re-iterate our concern that Fleetwood and the west of River Wyre has consistently been portrayed as away from any risks and need for full consultation, when we have the largest density of population in very close proximity to any proposed caverns.

The lack of detail available on the project makes it difficult to comment specifically at this time but we will again be working as part of the Protect Wyre Group when full consultation starts.

Yours sincerely

Margaret Daniels
Chairman
Fleetwood Civic Society
13th January 2011

Mr Bruce Gibson
Senior Project Manager
Halite Energy Group
Unit 5
St Georges Court
St Georges Park
Kirkham
PR4 2EF

Dear Mr Gibson

Thank you for your letters dated 26th November and 23rd December which were sent to Rev Martin Keighley. We have discussed the content and our views previously held concerning opposition to the gas storage facility at Preessall remain unchanged.

Yours faithfully

[Signature]

John E Simpson
Secretary
To: Mr Bruce Gibson, Senior Project Manager, Halite Energy Group

Re: Application for a Development Consent Order to authorise an Underground Gas Storage (UGS) Facility

Firstly thank you for the opportunity to be able voice our opinions concerning your updated “Project” development proposals.

As we have not had previous communications may I take this opportunity to provide you with a brief overview of the running of the Alkali (with Preesall) Angling Club.

We have over 50 years history of running the fishing waters located within the subsidence’s at Preesall. The facilities are open for members of the public to join annually (approximately 500 membership from local communities), with the Club being non-profit making returning its membership fee revenue back into the running of the club, i.e., pegs and path maintenance, competition prizes and replenishment of fish stocks. It is noted that in accordance with the true spirit of freshwater angling principles all fish caught are returned back into the waters alive. If at any stage you wish to have an informed walk round our fishing facilities we would be pleased to arrange this.

As highlighted in a previous correspondence with CGS it outlined our responsibility towards environmental aspects in order to maintain flora and fauna in the surrounding area and this remains to be our priority.
The “Project” Description Summary describes the former salt workings and the water filled depressions. The Alkali (with Preeall) AC runs its fisheries on three of these small lakes located in close proximity to one another. The Club runs these facilities under strict controls and monitors them on a daily basis; with the safety of club member’s access and activities being paramount. Through many years experience of fishery management leads to widespread enjoyment of the angling facilities and surrounding countryside and wildlife.

Following a review of the project proposals concerning the above ground developments, they are located a short distance away from our fishing facilities, therefore, we wish to seek assurance that the proposed developments should:-

- not adversely affect the noise levels transmitted around the surrounding countryside due to the operation of machinery and equipment;
- not adversely affect the noise levels transmitted around the surrounding countryside due to heavy vehicle movements required for construction and operational purposes;
- not adversely affect the areas drainage systems;
- not compromise the privacy of the local countryside which we enjoy;
- be proven that the new construction of the gas retaining caverns does not adversely affect the water containment of the three fishing lakes.

Yours Sincerely,

Alkali (with Preeall) Angling Club
22nd September 2011

RSK Group PLC
RSK Environment Ltd

For the attention of Ms Wendy Hogben

Dear Ms Hogben

Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire

Thank you for your letter of the 28th May 2011. We note that you have identified a potential conflict of interest where the Wyre Power and Halite projects propose to connect into electrical infrastructure at the existing Stanah and Electricity North West Substations.

We have agreed terms with National Grid for an option for a deed of grant of easement for the installation of our 2 x 132 kV cables. A plan was submitted and agreed with National Grid during April/May of this year.

However, it is our proposal that the 2 x 132 kV cables are pulled through ducts laid by trenchless method across the route from the south river crossing temporary compound at Kneep Caravan site into the corner of the Electricity North West compound of the 132 kV Substation. The vertical and horizontal trajectory of this cable route has not yet been designed. We note your proposal to lay you cables in a 4m deep open cut trench alongside the Electricity North West and National Grid Substation compounds.
Subject to acceptance of the Underground Gas Storage Project by the IPC we look forward to agreeing details of the cable crossing point with your good selves.

Yours sincerely

BRUCE GIBSON
Senior Project Manager
26th May 2011

Halite Energy Group
(Preesall Underground Gas Storage Facility Consultation)
FREEPOST RSRC-ÚETY-CHSU Unit 5
St Georges Court
Kirkham
Lancashire
PR4 2EF

Our Ref: RSK/ENVBRI/P110180/08/Rev 01

Dear Sirs,

Halite Proposed Application to the Infrastructure Panning Commission for a Development Consent
Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire

RSK Environment Ltd have been requested by Wyre Power to assess the implications of the above project on
their proposal for a new gas powered station and the export electrical cable route. The Wyre Power
application was made under section 36 of the Electricity Act 1989 and this application is currently under
consideration with DECC. From our initial review of the Halite information made available there is a potential
conflict of interest where the two projects propose to connect into electrical infrastructure at the existing Stanah
sub-station. This is a relevant matter for us to comment upon as requested in the consultation document.
Please bring this to the attention of the IPC.

1. Electrical cable route from Fleetwood Power Station:

Figure 1 below, shows the proposed electrical cable route from the proposed Fleetwood Power Station to the
existing Stanah sub-station. The proposed cable route crosses Hillylaid Pool, before running north of the
existing substation, along existing access roads before turning south into the site. The cable would be laid in a
trench approximately 3m deep.
Figure 1: Proposed Fleetwood Power Station cable route to Stanah sub-station
2. Cable route from Halite Facility:

Figure 2 below is taken from Figure 'A-9100-002 A3 South River Exit.pdf' provided by Halite. It shows the proposed cable route from the Halite facility to the existing Stanah sub-station. It is noted in the Preliminary Environmental Information that the ‘Cables would be laid underground from UU switchgear in the Stanah Switchyard, beneath the Wyre Estuary, and that ‘The pipes would be a minimum of 8 metres below the bed of the River’.

It is not clear from the supporting information how the cables will be buried under the existing Stanah Caravan Park, or how it will be constructed into the existing Stanah substation.
3. Potential for cable crossing issue

It is evident from the information provided by Halite that the electrical cables associated with the 2 projects will overlap north of the existing Stanah sub-station. This location is highlighted in Figure 3.

![Map showing proposed cable routes and potential crossing](image)

**Figure 3:** The site of potential cable crossing of the two proposed cable routes.

In order to make an informed assessment and to properly participate in Halite's consultation exercise RSK would request the following additional information from Halite relating to the potential cable crossing point:

- Detailed drawings and proposed construction method statements
- Confirmation of proposed cable burial depth
- Cross sections at the point of potential conflict

We look forward to hearing from you as soon as possible,

Yours faithfully

Wendy Hogben

Director
26th August 2011

Anthony Laithwaite Esq
Asset Protection Analyst
United Utilities Group PLC

Dear Mr Laithwaite

Thank you for your letters of the 24th June and 19th August 2011 in response to our Section 42 Consultation. Please accept my apologies for not contacting you before now, particularly in regard to your earlier letter.

A meeting has been arranged via our land agent with Mr Tidswell for the 8th September 2011 at 10.00 am. We look forward to this opportunity to be able to discuss our project in the hope that we can address all the issues you raise in your letter of the 24th June.

We note in particular the following areas of concern you raise and would like to use these as the basis for an agenda for the meeting:-

- Brine Discharge and Impact on the Fylde peninsular.
- Risk Assessment of gas leakage into fissured ground and interceptor tunnel.
- Risk Assessment of gas explosion/fire.
- Location of underground gas storage caverns with respect to WwTW assets.
- Disruption to UU tanker movements.

We have experts in all of the above aspects of the project design and would like to offer that we meet at our offices in Kirkham if that would be convenient.

Yours sincerely

BRIAN STANLEY
Project Director
Dear Mr Budinger,

Location: Preesall

Proposal: Proposed Underground Natural Gas Storage Facility

Thank you for your feedback.

At this moment in time United Utilities would like to maintain our objection the feedback report has insufficient information with regards to protecting United Utilities assets, please provide adequate information in order for us to review our response.

Yours Sincerely

Anthony Laithwaite
United Utilities
Asset Protection

Keith Budinger
Halite Energy Group
Unit 5 St Georges Court
St Georges Park
Preston
PR4 2EF

Your ref 124
Our ref DC/11/3164
Date 19-AUG-11
Location: Preesall, Lancashire

Proposal: Underground Natural Gas Storage Facility

Dear Mr Budinger

Thank you for involving United Utilities Water plc [U UW] in this consultation process, please see our comments below.

We have a number of critical assets that will be affected by this proposed development and we have concerns with your proposals which are summarized below. Therefore we must object to your current proposals.

The proposed pipeline and ancillary asset construction will cross several of U UW's strategic trunk main assets supplying treated water to customers. U UW will need to be consulted if this proposal is progressed to ensure that our infrastructure is protected. This may require a diversion to our infrastructure at the developer's expense.

A major concern is the increased risk of future problems associated with some of our key Wastewater Assets associated with the treatment of sewage and safe disposal to the Irish Sea. This particular area of the sea being a designated a Shellfish zone and several designated Bathing Waters along the northern end of the Fylde peninsula.

The leakage of gas through the fissured ground may have a significant impact on the U UW wastewater assets, particularly U UW's wastewater treatment works [WwTW] in the vicinity of the gas storage caverns, these are:-

Preesall WwTW:
Located to the east bank of the Wyre Estuary it would appear the storage of gas would surround this particular works serving approximate population of 26,000 in Knott End and Preesall

Fleetwood WwTW
Located on the west of the Wyre Estuary, this works is less than 2 miles away from the gas storage caverns and is a very significant works serving the whole of the Blackpool
and Fleetwood area (a population of up to 426,000 during peak season). Significant investment over £60 million has been spent on the works over the last four years, meeting an expectation of improved treatment, sludge management and odour.

A key concern with the proposed development would be to ensure that these assets remained well protected from any gas leakage which would occur through the fissured ground strata that is believed to exist underneath the Wyre Estuary. The developer would have to satisfy UUW that sufficient boreholes / ground investigation had been done to understand and assure UUW that the development would not increase the risk of future explosions of gas impacting upon the treatment facilities or sewers draining to the these works.

This also would apply to the Fylde Coast Interceptor tunnel which is located at a depth of 26 metres below the inlet of the treatment works. This tunnel is potentially at a depth not dissimilar to the salt caverns. This tunnel runs the whole length of the Fylde Coast from the Manchester Square headland at the southern end of the Golden Mile, along the front up to Rossall School, prior to turning in the direction of the treatment works. The risk of gas escaping the caverns and entering the tunnel provides a clear route for passage of leaked gas all the way along the front to south Blackpool.

Hence, the development potentially puts at risk both UUW assets and properties / hotels in close proximity to the tunnel and the coastline.

The potential construction of pipelines associated with the development also puts at risk the Fleetwood WwTW facility. Since previous applications were made by Canataxx, there has been significant development of the treatment facility with four large primary tanks now constructed on the edge of the south-west edge of the site running alongside the old railway line. In addition, a new sludge facility has been built along the northern boundary of the treatment works land. The development of any pipelines would have to take into consideration the construction of the new facilities on site and provide adequate assurance that these would not be impacted upon, or lead to settlement of any UUW facilities.

I would like to highlight that the route of the pipeline runs adjacent / across the line of the final effluent pipeline from the treatment works across the land to the coastline near Chatsworth Avenue. The effluent pipeline then discharges some 5 kilometres out into the Lune Deep. This pipeline ensures that the treated effluent is safely discharges back into the environment in line with the Environment Agency's requirements. The potential risks of the development disrupting this main needs to be identified and understood before the development should proceed. This may require extensive ground investigation to assure that the design of the development pipeline takes into consideration the UUW asset at any subsequent construction maintains safe working easements away from the UUW effluent main.

The construction of the development needs to consider and not disrupt the movement of tankers particularly in and out of Preessall WwTW, but also Fleetwood WwTW.
The development should also assure that either the development pipelines or infrastructure do not have an adverse impact upon the smaller diameter sewers in both the Preesall and Fleetwood areas. A medium sized rising main feeds all flows from the Preesall area into the treatment works. This and all other pipelines need to be considered.

Summary
With the concern that this development brings about risks to millions of pounds of UUW, it is difficult to support the application until it is better understood and significant more information about the ground and the design is completed.

Fleetwood WwTW approx. value in excess of £130million, Fylde Tunnel value also in excess of £140million, and Preesall WwTW value of £30million

Yours Sincerely

Anthony Laithwaite
United Utilities
Asset Protection
Dear Keith Budinger,

Further to your letter dated 4 April 2011 concerning the above, Trinity House has no direct comments to make in relation to your application for a Development Consent Order but I attach our previous comments regarding this project for your information.

Yours sincerely,

Steve Vanstone

Navigation Services Officer

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This email has been scanned for all viruses on behalf of Trinity House by the MessageLabs AntiVirus service (http://www.messagelabs.com)

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From: "Navigation Directorate"
Subject: Consultation on Proposed Application to the IPC for a Development Consent Order to Construct & Operate an Underground Natural Gas Facility at Prescall, Lancashire
Date: 20 May 2011 15:45:51 GMT+01:00
To: community@navia.net
CC: "Nick Dodds"

Dear Simon

Trinity House comments on FSA seeking for the Prescall Underground Gas Storage Facility

I refer to your letter dated 7th October under the above reference seeking comments from Trinity House on the Environmental Impact Assessment (EIA) Scoping Report submitted by the Uniper Energy Group for the proposed Prescall Railhead Underground Gas Storage Facility

Trinity House is the General Lighthouse Authority for England and Wales with statutory responsibilities under the Merchant Shipping Act 1995 for the supervision and management of aids to navigation off the coast of England and Wales. As part of these responsibilities we are concerned to advise the appropriate consenting authorities how any developments that take place in the offshore marine environment should be managed by a developer as part of the conditions of any consent authorising development and operation.

It is necessary to ensure that any development, including the Prescall Underground Gas Storage Facility, does not impede the safe passage of vessels navigating the area and in particular the safe navigation of the River Wyre. Trinity House has, on a number of occasions, warned the developer regarding the dangers that the proposed development would pose to vessels navigating the area.

The EIA Scoping Report submitted by the developer contains the information that is required by the Marine Safety Act 1995 for Trinity House to begin the process of consultation with the developer. Trinity House is required to consult with the developer to advise him of our concerns regarding the proposed development and the implications for the safe passage of vessels navigating the area.

Trinity House is required to consult with the developer to advise him of our concerns regarding the proposed development and the implications for the safe passage of vessels navigating the area.

I hope that these comments will be useful at this stage.

Yours sincerely,

John Cannon
Navigation Services Officer

Trinity House

This email has been scanned for all viruses on behalf of Trinity House by the MessageLabs AntiVirus service (http://www.messagelabs.com)
17 November, 2010.

Dear Mr Grant


I write as requested to acknowledge receipt of your letter of 12 November enclosing a Project Description for the proposed Pressall Natural Gas Storage Facility.

As you will be aware, we have been consulted by the Infrastructure Planning Commission on the Scoping Report for the Project and I enclose a copy of my e-mail response of 9 November to them, which hopefully outlines our interest in the project. You will see that this interest is essentially limited to the offshore aspects of the project and in particular the navigational marking that may be required to be provided by the developer to mitigate the risk that the project may present during construction, operation, decommissioning and potentially thereafter if any obstruction remains after removal operations have been completed.

We look forward to discussing this aspect of the proposal with the developers in due course.

Yours sincerely

John Cannon
Navigation Services Officer
From: "Ward, Tim"
Subject: RE: Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct an Underground Natural Gas Facility at Preesall, Lancashire
Date: 13 May 2011 14:53:52 GMT+01:00
To: "Karen Archer" <karen.archer@halite.net>

Karen,

Following our discussion and your e-mail I have spoken with my colleagues and found the original consultation letter and background report.

On the basis that these proposals are not located near or do not directly affect operational railway lines, then the Office of Rail Regulation has no objection to nor any comments to make on the proposals set out in your consultation letter.

Please accept my apologies for the lack of response to your original letter.

I hope this response is satisfactory but if you need anything further, please call me on 020 or respond to me by e-mail.

Regards,

Tim Ward
Senior Executive, Strategy Planning and System Safety/Licensing & Network Regulation Team

-----Original Message-----
From: Karen Archer [mailto:karen.archer@halite.net]
Sent: 13 May 2011 14:35
To: Ward, Tim
Subject: Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct an Underground Natural Gas Facility at Preesall, Lancashire

Dear Mr Ward

Further to our telephone conversation today, I write to confirm Halite Energy's proposals to construct and operate an Underground natural gas facility at Preesall in Lancashire. A consultation letter and documentation was sent to your offices on the 4th April in this respect.

I just wanted to check that you have had the opportunity to consider the documentation and if so have formed an opinion as to whether you have any comment to make in regard to our proposals. A written response or email would be perfectly acceptable.

Many thanks for your co-operation and I look forward to hearing from you shortly.

Best wishes.

Karen

Karen Archer
PA to Chief Executive
Halite Energy Group

We cannot accept any liability for any loss or damage sustained as a result of software viruses. You must carry out such virus checking as is necessary before opening any attachment to this message. The information in this email and any files transmitted with it may be of privileged
Dear Keith

Proposed Preesall Saltfield Underground Gas Storage Facility

Thank you for your letter dated 10th May 2011 in which you invited MCA to comment on the proposed application for the Preesall Underground Gas Storage facility.

We have considered the information provided and it can be noted that the works are unlikely to have an adverse impact with regards to the safety of navigation provided the conditions below are applied to this development.

Please note that these conditions only apply to the cables/pipelines crossing the river and salt water outfall as described in the project plan. We would however, only confirm these conditions once we have sighted the appropriate Marine Licence application from the Marine Management Organisation or as appropriate:

1. A copy of this consent must be given to each contractor appointed to carry out part or all of 'the works' in order that they are clear about the extent of 'the works' for which consent has been given and the conditions that are attached to the consent.

2. The Consent Holder should ensure appropriate steps are taken to minimise damage to the beach/foreshore/river bank by the works.

3. The Consent Holder should ensure that any equipment, temporary works and/or debris associated with the works are removed from the foreshore upon completion of the works.

4. The Consent Holder should ensure the best method of practice is used to minimise re-suspension of sediment during these works.

5. The Consent Holder should ensure suitable bunding, storage facilities are employed to prevent the release of fuel oils, lubricating fluids associated with the plant and equipment into the marine environment.
6. The Consent Holder must ensure the beach/foreshore/riverbank is returned to the original profile following the completion of the works.

7. The Consent Holder should ensure the local mariner’s and fishermen’s organisations are notified.

8. The Consent Holder should notify the UK Hydrographic Office to permit the promulgation of maritime safety information and updating of nautical publications.

9. The works shall be maintained at all times in good repair.

10. The works should be removed from below the level of mean high water springs within one month of notice being given by the Secretary of State at any time he considers this necessary or advisable for the safety of navigation, and not replaced without further consent by the Secretary of State.

11. No radio beacon or radar beacon operating in the Marine frequency bands shall be installed or used on the works without prior written approval by the Secretary of State.

12. If in the opinion of the Secretary of State the assistance of a Government Department, including the broadcast of navigational warnings, is required in connection with the works or to deal with any emergency arising from the failure to mark and light the works as required by the consent or to maintain the works in good order or from the drifting or wreck of the works, the owner of the works shall be liable for any expense incurred in securing such assistance.

13. Officers of the MCA, or any other person authorised by the Secretary of State, should be permitted to inspect the works at any reasonable time.

14. The site is within port limits and the responsible local navigation authority, in close consultation with the Harbour Commissioners where appropriate, may wish to issue local warnings to alert those navigating in the vicinity to the presence of the works during the construction. Additionally, they may need to review their Port Marine Safety Code risk assessments.

15. The matter is an issue for the local harbour authority with conservancy responsibilities. They have the responsibility within their port limits for ensuring their harbour is fit for use by, for example, not permitting the spoil to foul navigable channels thus assuring the safety of navigation.

16. Vessels to comply with the International Regulations for Preventing Collisions at Sea, 1972 (COLREGs) – as amended, particularly with respect to the display of lights, shapes and signals.

17. The works should be marked and lighted in accordance with the requirements of the General Lighthouse Authority in this case Trinity House Lighthouse Service.

18. Any jack up barges/vessels utilised during the works, when jacked up, should exhibit signals in accordance with the UK Standard Marking Schedule for Offshore Installations.
The developers must also consult with the local Harbour / Navigation Authority, who has jurisdiction over the area, and under the Port Marine Safety Code the following will apply:

From the Guide to Good Practice, section 6 Conservancy, a Harbour Authority has a duty to conserve the harbour so that it is fit for use as a port, and a duty of reasonable care to see that the harbour is in a fit condition for a vessel to use it. Section 6.7 Regulating harbour works covers this in more detail and have copied the extract below from the Guide to Good Practice.

6.7 Regulating harbour works

6.7.1 Some harbour authorities have the powers to license works where they extend below the high watermark, and are thus liable to have an effect on navigation. Such powers do not, however, usually extend to developments on the foreshore.

6.7.2 Some harbour authorities are statutory consultees for planning applications, as a function of owning the seabed, and thus being the adjacent landowner. Where this is not the case, harbour authorities should be alert to developments on shore that could adversely affect the safety of navigation. Where necessary, consideration should be given to requiring the planning applicants to conduct a risk assessment in order to establish that the safety of navigation is not about to be put at risk. Examples of where navigation could be so affected include:

- high constructions, which inhibit line of sight of microwave transmissions, or the performance of port radar, or interfere with the line of sight of aids to navigation;
- high constructions, which potentially affect wind patterns; and
- lighting of a shore development in such a manner that the night vision of mariners is impeded, or that navigation lights, either ashore and onboard vessels are masked, or made less conspicuous.

There is a British Standards Institution publication on Road Lighting, BS5489. Part 8 relates to a code of practice for lighting which may affect the safe use of aerodromes, railways, harbours and navigable inland waterways.

Yours sincerely

Capt. Clive Lane  
Navigation Safety Branch
Dear Mr Budinger,

Thank you for your letter of 10 May 2011.

The Joint Nature Conservation Committee (JNCC) is the statutory adviser to Government on UK and international nature conservation. JNCC co-ordinates nature conservation advice at a UK level and advises UK Government on scientific and policy matters relating to nature conservation internationally. Within each UK country the separate statutory bodies are responsible for nature and landscape conservation these being: Natural England (NE), Countryside Council for Wales (CCW), Scottish Natural Heritage (SNH) and the Council for Nature Conservation and the Countryside, Northern Ireland (CNCCNI).

JNCC has responsibility for the provision of nature conservation advice in the offshore area. ‘Offshore’ is defined as beyond 12 nautical miles (nm) from the coastline to the extent of the United Kingdom Continental Shelf (UKCS). Within territorial limits (<12 nm) nature conservation advice is the responsibility of the relevant country agencies.

This development proposal is not located within the offshore area, does not have any potential offshore nature conservation issues and is not concerned with nature conservation at a UK level; therefore JNCC does not have any comments to make on the consultation.

With kind regards

Yours sincerely

Mrs Wendy Dalton
Business Information Officer
JNCC
Tel: 01733
E-mail:

please consider the environment - do you really need to print this email?
4 April 2011

Mrs Wendy Dalton
The Joint Nature Conservation Committee Offshore

Dear Mrs Dalton,

**Halite Energy Group Limited**

**Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire**

**Section 42 Planning Act 2008**

**Infrastructure (Applications : Prescribed Forms and Procedure) Regulations 2009 ("APFP Regulations")**

**Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 ("EIA Regulations")**

Halite Energy Group Limited ("Halite") is consulting on its proposals for developing an underground natural gas storage facility at Preesall, Lancashire which include a pipeline extending to the National Grid National Transmission System at Nateby and a brine discharge pipeline from Preesall which extends off-shore from Fleetwood ("the Project"). The proposed Project will include up to 19 underground gas storage caverns with a capacity to store up to 900 million cubic metres of natural gas. This will provide approximately 600 million cubic metres of "Working Gas".

As the proposed development falls within the definition of "nationally significant infrastructure" the application for approval of the Project (termed a Development Consent Order or DCO) will be determined by the Infrastructure Planning Commission ("IPC"). The requirements for applications to the IPC for a DCO are set out in the Planning Act 2008 and subsequent guidance issued by the Government and the IPC. Further information on the IPC process can be found on the IPC website at [http://infrastructure.independent.gov.uk](http://infrastructure.independent.gov.uk)

This letter is sent to you as part of a statutory consultation exercise carried out pursuant to Section 42 of the Planning Act 2008, the APFP Regulations and the EIA Regulations.

You are consulted in respect of the proposed application in your capacity as a statutory consultee as prescribed by Schedule 1 of the APFP Regulations and/or a consultee under section 42 Planning Act 2008.
Halite Energy Group
FREEPOST RSRC- UETY- CHSU
Unit 5
St Georges Court
St Georges Park
Kirkham
Preston
Lancashire
30 June 2011

Dear Mr Budinger,

CONSULTATION ON PROPOSED APPLICATION TO IPC IN RESPECT OF UNDERGROUND NATURAL GAS FACILITY AT PREESALL

Thank you for your letter of 22nd June 2011 providing a further opportunity for comment.

The Agency does not, however, wish to make any observations regarding the proposed application at this time.

Yours sincerely,

[Signature]

Chris Henshall
Investment & Regeneration Manager
Lancashire & Cumbria Area
Homes and Communities Agency

Cc Neil Clarke
Steve Robson
Halite Energy Group
(Preesall Underground Gas Storage Facility Consultation)
FREEPOST RSRC-UYET-CHSU Unit 5
St. Georges Court
St. Georges Park
Kirkham
Lancashire
PR4 2EF
community@halite.net

Dear Sir/Madam,

Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire

Section 42 Planning Act 2008
Infrastructure (Applications: Prescribed Forms and Procedure) Regulations 2009 ("APFP Regulations")
Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 ("EIA Regulations")

Thank you for your letter of 4th April 2011 consulting the Health and Safety Executive (HSE) under Section 42 of the Planning Act 2008 for the above application for a Development Consent Order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire.

HSE’s land use planning advice

As agreed at our meeting of 21 April 2011 HSE will expect HALITE to submit, at a later stage, a formal application by completing an express consent application (Form 1) which will be processed by the Hazardous Substances Authority. The details contained in such an application will form the basis for the assessment HSE will conduct and the land use planning and hazardous substance consent advice that will be provided to the hazardous substances authority.

Following the meeting at our Bootle offices, the issues that were considered in our consultation were that of the PADHI+ advice generated upon considering your proposal; and then also to provide feedback with regards to the hazardous substance consent which may be required for what is being proposed at this stage.
Will the proposed Underground Gas Storage Facility fall within any of HSE’s consultation distances and if so what would HSE’s advice be?

The proposed Underground Natural Gas Storage Facility does not fall within any of the HSE’s consultation distances. The proposal does include details of an interconnecting pipeline link to the NTS but no hazardous installations are in the vicinity of the proposed development.

This means that the HSE will not advise against the development on the grounds of any incompatible developments in the vicinity of the proposed storage facility.

Is the site likely to store Hazardous Substances? If so, or if it is not clear, what does the Applicant need to do?

It is clear from the proposal documentation that the site would need to obtain consent from the Hazardous Substances Authority (HSA), in accordance with the Planning (Hazardous Substances) (Amendment) (England) Regulations 2009. In this particular case, we assume that the HSA would be the Infrastructure Planning Commission.

In response to your request, the Health and Safety Executive (HSE) has considered how it might advise the Hazardous Substances Authority should the proposal be submitted in its present form.

The Health and Safety Executive (HSE) has assessed the risks from hazardous substances identified in the proposal. Only the risks from hazardous substances subject to the consent provisions of the Planning (Hazardous Substances) Regulations 1992, as amended by the Planning (Control of Major Accident Hazards) Regulations 1999, have been assessed. Risks which may arise from the presence of other substances have not been taken into account in this assessment.

In accordance with DETR Circular 04/2000 paragraph A7, HSE has assessed the risk of harm from the maximum quantity of hazardous substances that would be permitted should a formal application be submitted.

On the basis of a preliminary assessment we think it unlikely that we would advise against the proposal. We might need to review our position on the basis of a fresh assessment of the data available when a formal application is referred to us.

It should be noted that if the details in the final proposal differs from the one that this conclusion is based upon (your latest consultation documents received 04 April 2011), HSE’s advice to the IPC may be affected. If necessary, we can discuss alternative storage arrangements to allow the granting of consent.

Explosives

The proposed Underground Natural Gas Facility at Preesall, Lancashire does not impinge on the separation distances of any explosive site licensed by the HSE.

Other information

Your attention is drawn to advice within the enclosed letter issued to the IPC in response to the Environmental Impact Assessment Scoping Opinion.
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**Other information**

Your attention is drawn to advice within the enclosed letter issued to the IPC in response to the Environmental Impact Assessment Scoping Opinion.
Yours' sincerely,

[Signature]

Penny Taylor
Land Use Planning Policy
Health and Safety Executive
Mr Simon Butler  
EIA & Land Rights Advisor  
Infrastructure Planning Commission (IPC)  
Temple Quay House  
Temple Quay  
Bristol  
BS1 6PN  

16th November 2010  

Dear Mr Butler  

PROPOSED PREESALL SALTFIELD UNDERGROUND GAS STORAGE FACILITY ("the project")  
PROPOSAL BY HALITE ENERGY GROUP LTD ("the applicant")  
INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2009 SI 2263 ("the EIA Regulations")  

Thank you for your letter of 19th October 2010 regarding the information to be provided in an environmental statement relating to the above project.

Halite Energy Group Limited state, in paragraph 1.2.8 of the scoping report, that the design parameters are developed in conjunction with and approval of HSE following the drilling and testing of a borehole for each cavern. HSE does not develop design parameters in conjunction with the operator nor approve them. Responsibility for safety in the design, construction, operation and maintenance of the site rests with the COMAH operator.

There is a duty under the Control of Major Accident Hazards Regulations 1999 (COMAH) on the operator of a proposed major hazard site such as Preesall salt cavity gas storage to submit to the joint COMAH Competent Authority (CA) – HSE and the Environment Agency – a safety document termed a COMAH pre-construction safety report, in which the operator is required to adequately demonstrate how safety and reliability in design, including compliance with relevant good practice has been incorporated into the proposed site including the storage cavities. The CA in turn assesses the report, determines whether the demonstration has been made or not and communicates its conclusions to the
Operator. The COMAH Operator is legally not allowed to start construction of the facility until the CA has communicated its conclusions to the Operator.

There are some observations that HSE would like to pass on to Halite Energy Group Limited.

**Major hazards sites and explosives sites within the vicinity of the proposed development**

**Explosives sites**

A check has been made on the locations of licensed explosives sites in relation to the proposed Preesall Saltfield underground gas storage facility. On the basis of the information provided, there are no HSE-licensed explosives sites which might impact on this development.

**Major Hazard Sites**

HSE has taken the opportunity to check its records to establish whether the proposed development would fall within HSE’s consultation distance (CD) for a major hazard installation or pipeline. The proposed underground gas storage facility at Preesall does not fall within any HSE land use planning (LUP) consultation distances.

**Hazardous Substances Consent**

Any site needing to store or use hazardous substances at or above specific quantities must obtain Hazardous Substances Consent (HSC) from the Hazardous Substances Authority (HSA) (usually the Local Authority) in accordance with the Planning (Hazardous Substances) (Amendment) (England) Regulations 2009 and 2010. In this case the Hazardous Substances Authority (HSA) is Lancashire County Council. The list of named substances and the controlled quantities can be found in Schedule 1 of the Regulations.

There is insufficient detail in the Environmental Scoping Report for HSE to advise whether HSC would be required for this site. However the threshold for natural gas is 15 tonnes. Therefore the promoter should check if any of the named substances in Part A of the Schedule are present at or above the specified controlled quantities. If so, the promoter will need to apply for HSC. In many cases the substances present may not be included in Part A; but they may fall within one or more of the categories of substances & preparations specified in Part B of the Regulations. If that is the case and they are present at or above the controlled quantity, then the promoter would need to obtain HSC.

HSC might also be required for the presence of hazardous substances even though the amount present is below their controlled quantity. This may happen because substances within the same generic category, which have similar hazard characteristics, would be added together to determine whether consent is required for some or all of them. Further information and advice can be found at [http://www.hse.gov.uk/gas/supply/saltcavity.htm](http://www.hse.gov.uk/gas/supply/saltcavity.htm).
Operator. The COMAH Operator is legally not allowed to start construction of the facility until the CA has communicated its conclusions to the Operator.

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**Hazardous Substances Consent**

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There is insufficient detail in the Environmental Scoping Report for HSE to advise whether HSC would be required for this site. However the threshold for natural gas is 15 tonnes. Therefore the promoter should check if any of the named substances in Part A of the Schedule are present at or above the specified controlled quantities. If so, the promoter will need to apply for HSC. In many cases the substances present may not be included in Part A; but they may fall within one or more of the categories of substances & preparations specified in Part B of the Regulations. If that is the case and they are present at or above the controlled quantity, then the promoter would need to obtain HSC.

HSC might also be required for the presence of hazardous substances even though the amount present is below their controlled quantity. This may happen because substances within the same generic category, which have similar hazard characteristics, would be added together to determine whether consent is required for some or all of them. Further information and advice can be found at [http://www.hse.gov.uk/gas/supply/saltcavity.htm](http://www.hse.gov.uk/gas/supply/saltcavity.htm).
I hope this information is useful. HSE looks forward to receiving the formal s42 consultation from the promoter in due course when the plans are sufficiently developed.

Please note any further electronic communication on this project can be sent direct to the HSE designated e-mail account for NSIP applications the details of which can be found at the top of this letter. Alternatively hard copy correspondence should be sent to Miss Vilja Gatrell at the above address, or telephone 0151

Yours sincerely

Penny Taylor
Risk Communications Policy Unit
Halite Energy Group
(Presall Underground Gas Storage Facility Consultation)
FREEPOST
RSRC-UETY-CHSU Unit 5,
St Georges Court,
St Georges Park,
Kirkham,
Lancashire PR4 2EF

Date 06 April 2011
Reference 4.2.1.1507.

Dear Sirs

CONSULTATION ON PROPOSED APPLICATION TO THE INFRASTRUCTURE PLANNING COMMISSION FOR A DEVELOPMENT CONSENT ORDER TO CONSTRUCT AND OPERATE AN UNDERGROUND NATURAL GAS FACILITY AT PREESALL, LANCASHIRE

Thank you for letter dated 4 April 2011 consulting the Health and Safety Executive (HSE) on the above proposed application.

I will provide the HSE’s response to those aspects of the application concerning hazardous substances consent and land use planning arrangements around the proposed facility. For this purpose, the application is with the Major Accidents Risk Assessment Unit (HID CI5) of the HSE. There will be a delay before CI5 can provide a response to the consultation.

CI5 needs to undertake a detailed, peer-reviewed technical analysis to provide accurate advice to you. This may need to be repeated to include additional site information and, where initial incompatibility exists, further work may be required to identify conditions which might reduce the risks to the local population to an acceptable level. The resources available to CI5 for this are limited and the work can be quite complex.

We will process this consultation as quickly as possible and aim to respond by your requested deadline of 27 May 2011. However, if any issues of concern are identified we would wish to take up your offer to continue dialogue beyond this date.

This consultation has been copied to other parts of HSE who have an interest in different aspects of the proposal. If they have any comments they will also respond to you.

If you have any queries please contact me on 0151 or by email.
Yours faithfully

Ralph Rowlands
HM Principal Specialist Inspector
Major Accidents Risk Assessment Unit
For the Attention of Keith Budinger
Halite Energy Group

[By Email: community@halite.net]

20 April 2011

Dear Mr Budinger

Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to Construct and Operate an Underground Natural Gas Facility at Presall, Lancashire

Thank you for your consultation letter of 04 April 2011 seeking the views of The Coal Authority on the above proposed application.

I have reviewed the proposals and confirm that the site of the proposed development is located outside of the defined coalfield. As such, The Coal Authority does not wish to make any specific comments or observations on the proposed development.

Please do not hesitate to contact me if you would like to discuss this matter further.

Yours sincerely

D Berry

David Berry B.Sc.(Hons), MA, MRTDI
Planning Liaison Manager

Protecting the public and the environment in coal mining areas
Dear Sir or Madam,

I am writing to confirm that SSE Pipelines Ltd do not have any comments to make regarding the above proposal.

Regards

Doug Hershey
Network Manager | SSE Pipelines

SSE Utility Solutions.

T: +44 (0)1635;  M: +44

www.sse.com

Think Green. Do you really need to print this email?

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****************************************************************************************************************
Halite Energy Group
Unit 5 St Georges Court
St Georges Park
Kirkham
Preston
Lancashire
PR4 2EF

15 September 2011

Dear Sirs

MR & MRS PARKINSON
REQUEST FOR AUTHORISATION UNDER S53 PLANNING ACT 2008

Further to the above matter, we can confirm that we have spoken with Mr Parkinson who has indicated to us that he will not agree to complete the questionnaire provided.

Mr Parkinson no longer feels that our assistance is necessary and consequently we are no longer instructed to act on his behalf.

In the circumstances, we will now be closing our file of papers and would suggest that you contact Mr and Mrs Parkinson direct from now onwards.

Yours faithfully

[Signature]

CROMBIE WILKINSON SOLICITORS LLP
g.marrison@crombiewilkinson.co.uk
Our ref: GFM/LW/Parkinson
Your ref: Brian Stanley

Halite Energy Group
Unit 5 St Georges Court
St Georges Park
Kirkham
Preston
Lancashire
PR4 2EF

16 August 2011

Dear Sirs

OUR CLIENTS: MR & MRS PARKINSON
REQUEST FOR AUTHORISATION UNDER S53 PLANNING ACT 2008

We write further to your letter of the 1 August 2011.

We note you have withdrawn your application to the IPC for authorisation to access our clients' land and indeed adjoining land.

We have recently spoken to Mr Gregory Jones at Land Referencing Services LLP. He had queried whether our client would voluntarily agree to completing a questionnaire that had previously been provided to him.

We wish to point out that at no stage did we indicate our client was willing to voluntarily comply and we wish to ensure that you have not misinterpreted the position and as a result withdrawn your application to the IPC.

We have no instructions to act on behalf of our clients in reviewing and advising upon this matter, unless we receive an undertaking from your solicitors that you will be responsible for our reasonable costs. At this stage, we would estimate our initial costs to be £750 plus VAT, however we reserve the right to re-assess those costs if the matter becomes protracted.

Yours faithfully

CROMBIE WILKINSON SOLICITORS LLP
l.walker@crombiewilkinson.co.uk
Dear Sirs

MOSS VIEW FARM, PREESALL, POULTON LE FYLDE FY6 0PQ

Your letters of 7 and 11 February 2011 addressed to our client Mr G J T Parkinson have been passed to us with a request that we respond thereto.

It is not entirely clear from your letters of the nature of the rights you wish to secure from our client. Perhaps you would outline these in detail.

Before we are to deal with this matter and provide advice to our client, we shall require your Company's Solicitors' undertaking to discharge our reasonable costs for researching the matter and giving the advice. Any initial undertaking can be limited to £500 plus VAT but we reserve the right to re-assess the costs should the matter become protracted.

Your letter of 7 February 2011 refers to the Infrastructure Planning Commission but this quango was abolished by the present government.

Yours faithfully

Crombie Wilkinson Solicitors LLP
n.faulkes@crombiwilkinson.co.uk
Dear Sir John Roberts,

Moss View Farm was visited on 07/02/2011 by your "Halite" employees Brian Stanley and Debbie Morris. They were seeking to gain access to the farm for an environmental survey and were refused permission.

We are members of the National Farmers Union and have discussed the situation with their legal team. The NFU have advised us to reply in writing and to make the following points.

The NFU advised us that it would be in our interest to appoint a professional land agent to act on our behalf, as we do not have the necessary knowledge to negotiate with "Halite" regarding matters relating to our land and property rights. Therefore the NFU say that your company "Halite" must agree in writing to pay any professional fees incurred on our behalf to such an agent acting for us in this matter.

Once this is agreed in writing, that is "Halite" agrees to pay professional fees as detailed above, and if our agent advises us to do so, we may consent to a survey of our land provided also that any person wanting access contacts us in advance and is accompanied while on our property by a member of the family or our agent.

There will be no access until the above details are agreed in writing to us.

Yours faithfully

[Signature]

George Parkinson BSc
Date: 11th February 2011

Our Ref: MB/DH

Mr. G. Parkinson

Dear Mr. Parkinson,

I refer to your letter dated 8th February, addressed to John Roberts, Chairman of Halite Energy Group Limited (Halite). Mr. Roberts has asked me to reply to your letter on his behalf as he is presently travelling between the USA and the UK.

I note the content of your letter and in particular the points you raise in paragraphs 3 and 4 of your letter. The appointment of a suitably qualified Land Agent would fall into the category of "reasonable". Indeed I am pleased to hear that you intend to appoint a Land Agent to undertake negotiations on your behalf. It would be helpful if you could let me have contact details of your advisor as soon as possible.

I confirm Halite is in principle prepared to meet the reasonable costs incurred by you in respect of negotiations between us provided we are given details as such costs are incurred. The work we wish to undertake has been requested by the Environment Agency and we have no choice but to comply.

In the meantime, if I can be of any further assistance, please do not hesitate to contact me.

Kind regards.

Yours sincerely,

Mike Brown
Company Secretary.
Halite Energy Group
(Presalls Underground Gas Storage Facility Consultation)
FREEPOST RSRC - UETY - CHSU
Unit 5
St Geoges Court
St George's Park
Kirkham
Lancashire
PR4 2EF

BY POST AND EMAIL: community@halite.net

Dear Sirs

Re: Halite Energy Group Limited ("Halite")
Consultation on Proposed Application to the Infrastructure Planning Commission for a Development Consent Order to Construct and Operate an Underground Natural Gas Facility at Presalls, Lancashire ("the Project")

We act on behalf of Electricity North West Limited and refer to your letter of 4th April 2011, with enclosures, to our client regarding the Project.

We are instructed that our client has (inter alia) the following proprietary interests within the land that is to be the subject of the Project:

1. A 33kv electricity line, which is located within land owned by Halite and which will need to be diverted in order for the Project to proceed.

We understand that Halite or its agents have already held discussions with representatives of our client regarding the diversion of this line and that Halite have now agreed to an appropriate diversion route. We are also advised that discussions are ongoing between Halite, or its agents, and our client regarding the terms for the diversion agreement and regarding a financial contribution towards the diversion costs that our client will incur as a result of the Project.

2. A 132kv substation, beneath which it is proposed to install a brine pipeline as part of the Project. We understand that Mr Phil O'Brien of our client will be holding discussions with Halite, or its agents, in due course regarding the grant of a suitable easement to facilitate this.
Subject to the satisfactory resolution to our client of these issues, our client has no objection to the proposals for the Project.

Our client welcomes the early opportunity that has been provided by Halite and its agents to hold discussions regarding the Project and wishes to work with Halite and its agents to resolve these issues as expeditiously as possible.

We look forward to hearing from you in due course.

Yours faithfully

Hill Dickinson LLP

Hill Dickinson LLP
27 April 2011

Your Ref: Halite/NSRFL/88
Our Ref: 1021127

Halite Energy Group Limited
Unit 5, St Georges Court
St Georges Park
Kirkham
Lancashire
PR4 2EF

Dear Sirs

The Proposed Application by Halite Energy Group Limited for Development Consent Order (DCO) for the Preesall Saltfield Underground Gas Storage Facility

We refer to your letter of 21st April and previous correspondence in connection with the above.

We are now in receipt of your letter dated 19th April confirming you will meet our costs in connection with this matter. We have passed the correspondence to our lawyers who are dealing with this matter and shall revert to you shortly.

Kind regards

Yours sincerely

Carol Thomson

Biffin Limited
12 April 2011

Our Ref: 1021127

Halite Energy Group Limited
Unit 5, St Georges Court
St Georges Park
Kirkham
Lancashire
PR4 2EF

Dear Sirs

The Proposed Application by Halite Energy Group Limited for Development Consent Order (DCO) for the Presells Saltfield Underground Gas Storage Facility

We refer to our letter of 23rd March (copy enclosed) and your subsequent letter dated 4th April.

Given the timescale for comments and representations we would be obliged if you would please confirm that you will cover all reasonable costs incurred by us before completing your information request.

We look forward to hearing from you.

Kind regards

Alex Dornan
Projects Director

Biffen Limited
Fyfe Chambers
105 West George Street,
Glasgow G2 1PB

Tel (0)141
Fax (0)141

Registered No 84909
Halite Energy Group Limited
Unit 5, St Georges Court
St Georges Park
Kirkham
Lancashire
PR4 2EF
Dear Sir/ madam

THE PROPOSED APPLICATION BY HALITE ENERGY GROUP LIMITED FOR DEVELOPMENT CONSENT ORDER (DCO) FOR THE PREESALL SALTFIELD UNDERGROUND GAS STORAGE FACILITY.

With regards to your correspondence dated 18th March 2011 reference Halite/NSRF/17/1, requesting information regarding land, rights or interests in our ownership which could be subject to compulsory acquisition powers pursuant to your proposed DCO. Due to the nature and complexity of your Information Request (IR’s) it is necessary to refer all IR’s on this subject to our legal representative to ensure a comprehensive and speedy response.

Please confirm that you will cover all reasonable costs incurred by NPL Estates Limited in completing your information request.

I understand you are working against the clock therefore in order to facilitate a speedy response please forward electronic copies of all letters, questionnaires and maps to my e-mail address below.

Should you wish to discuss anything in this letter please do not hesitate to call me.

Yours Sincerely

Alex Doman
Projects Director

E-mail;

BIFFIN
LIMITED

Ref: 1021127/23.03.11/AD
23rd March 2011

Biffin Limited
Fyfe Chambers
105 West George Street
Glasgow G2 1PB

Tel. 0141-
Fax 0141-
Halite Energy Group Limited  
Unit 5, St Georges Court  
St Georges Park  
Kirkham  
Lancashire  
PR4 2EF  
Dear Sir/ madam

THE PROPOSED APPLICATION BY HALITE ENERGY GROUP LIMITED FOR DEVELOPMENT CONSENT ORDER (DCO) FOR THE PREESALL SALTFIELD UNDERGROUND GAS STORAGE FACILITY.

With regards to your correspondence dated 18th March 2011 reference Halite/NSR/I/17/1, requesting information regarding land, rights or interests in our ownership which could be subject to compulsory acquisition powers pursuant to your proposed DCO. Due to the nature and complexity of your Information Request (IR’s) it is necessary to refer all IR’s on this subject to our legal representative to ensure a comprehensive and speedy response.

Please confirm that you will cover all reasonable costs incurred by Biffen Limited in completing your information request.

I understand you are working against the clock therefore in order to facilitate a speedy response please forward electronic copies of all letters, questionnaires and maps to my e-mail address below.

Should you wish to discuss anything in this letter please do not hesitate to call me.

Yours Sincerely

Alex Dorman
Projects Director

E-mail;
File Note

Halite – NTS

Meeting with Mr & Mrs Ronson at their farm on Head Dyke Lane 01/07/11

They farm about 50 acres at their farm, 4 fields together with rearing day old chicks to 16 weeks. The land is in an arable rotation of potatoes, barley and grass and they have no livestock. The land is drained and some of the drains are quite shallow as there is not much fall. Drainage will be an important consideration where the pipeline passes through their land.

We discussed the scheme and I explained the purpose of my visit following my letter to NTS occupiers. The Ronsons do not have an agent but may use Richard Furnival. They do not have a solicitor appointed but may use Naphens in Preston. They would be happy to receive draft documentation and it was agreed that as soon as the draft documents were ready, a set would be sent out to them.

With regard to the Section 42 consultation they confirmed that they had received the paperwork but had no comment on it.

WJB 04/07/11
-----Original Message-----
From: Lancaster, Stephen [mailto:
Sent: 04 November 2011 15:39
To: Karen Archer
Cc: Bruce Gibson; william bashall
Subject: RE: Copies of letters as requested

Will,

As we discussed I am happy for you to accept our consultation has concluded 4th November.

My two comments are that the Drilling compound adjacent to the Estuary is very close to our site and as a consequence:

1. Temporary screening should be erected for the duration of the works.
2. Works should be carried out in normal daylight working hours Mon-Fri and not at weekends.

I understand this process does not affect our statutory rights.

Regards

Stephen

Stephen Lancaster MRICS
Land Director
Persimmon Homes Lancashire
Persimmon House
Lancaster Business Park
Caton Road
Lancaster
LA1 3RQ
Tel.01524
Fax.01525

-----Original Message-----
From: Karen Archer [mailto:karen.archer@halite.net]
Sent: 04 November 2011 15:08
To: Lancaster, Stephen
Cc: Bruce Gibson; Will Bashall
Subject: Copies of letters as requested

Dear Mr Lancaster

Please find attached copies of the letters sent to yourself and Mr Cook.
The information in this email is confidential and may be legally privileged. It is intended solely for the addressee. Access to this email by anyone else is unauthorised. If you are not the intended recipient, any disclosure, copying, distribution or any action taken or omitted to be taken in reliance on it, is prohibited and may be unlawful. If you are not the intended recipient please contact the sender and delete the message.

Persimmon Homes Limited is registered in England number 4108747, Charles Church Developments Limited is registered in England number 1182689 and Space4 Limited is registered in England number 3702606. These companies are wholly owned subsidiaries of Persimmon Plc registered in England number 1818486, the Registered Office of these four companies is Persimmon House, Fulford, York YO19 4FE.
1st November 2011

Halite Energy Group Limited
Unit 5
St George’s Court
St George’s Park
Kirkham
Lancs PR4 2EF

Dear Sirs

Re: The Proposed Application by Halite energy Group Ltd for Development Consent Order for the Presessall Sale Field Underground Gas Storage Facilities at Presessall Salt Field, Wyre, Lancashire

I am responding to your letter, delivered by hand and dated 24th October 2011, with details of the Section 42 Consultation relating to the Halite Gas Storage Project.

My concern and comment is in regard to the access to my property at Elm Farm. This is served by the single unadorned track road, locally known as Station Lane. Your initial proposal includes for the construction of the gas pipe line across this land.

The business I operate from Elm Farm requires full uninterrupted access to the property at all times and I am concerned that the construction of your gas pipeline may interfere with my access.

You have indicated to me that you may be able to construct the gas pipeline at this location by a method that would not involve opening the surface of the road and possibly disrupting my access. Subject to the signing of the legal agreement with Halite or their successors to this effect, I confirm I have no comments to make in respect of the consultation materials or the project generally. I understand that this letter does not prevent me from raising any objection in the future.

I confirm that the above comments represent my complete response in relation to the consultation.

Yours faithfully

[Signature]

Mr J Cornthwaite

T: 0044 (0)1995 | F: 0044 (0)1995 | E:  
Mr D Thow  
Manager of Development Control  
Wyre Borough Council  
Civic Centre  
Breck Road  
Poulton-le-Fylde  
Lancashire  
FY6 7PU

Dear Mr Thow,

Proposed Underground Natural Gas Storage Facility, Preesall, Lancashire

I have pleasure in enclosing three sets of consultation documents in relation to the above project; two sets for perusal within Wyre Borough Council and a further set for display at your offices should members of the public wish to view the documents.

With regard to the latter, we respectfully request that the reports and drawings are not removed, however we have provided copies of our Project Overview and questionnaire which people are welcome to take home with them. Should any of the documents need replacing, do not hesitate to contact our office on 01772 672244.

As you know, a crucial part of our work is a thorough and effective consultation with the community that is affected by our plans.

This consultation is a key part of the pre-application stage of the IPC process. During our two-month long community consultation programme we will share the details of our proposed Project with the local community and listen to their views and opinions. Following the completion of this process we will review all feedback and consider whether any changes to the Project should be made. At this stage of the consultation we will also provide further information on the next steps in the process and the likely timing for making an application to the IPC for a Development Consent Order.

A key part of our consultation will be a series of exhibitions to be held in May. At these exhibitions our Project team will be available to explain the details of our proposals and answer any questions which local residents may have.

I would like to personally invite you to attend a session we have designated specifically for representatives of Lancashire County Council and Wyre Borough Council on Monday 9 May at Stalmine Village Hall, taking place from 2pm–4pm. I hope very much that your diary might permit you time to attend.
I look forward to hearing from you in due course and hope to have the opportunity to meet with you very soon.

Yours sincerely

Keith Budinger
Chief Executive
SALTMORE BARN, ASHFORD CARBONEL, LUDLOW, SHROPSHIRE SY8 4BU

16 August, 2011

Keith Budinger,
Chief Executive,
Halite Energy,
Unit 5, St George's Court,
KIRKHAM,
Lancashire PR4 2EF

Dear Mr Budinger,

Proposed Application by Halite Energy Group Ltd for a development consent order : Preesall, Saltfield and associated pipeline

I enclose a copy of my letter of 26 April to Parma Kataria of Land Referencing Services LLP, explaining that the trustees of the Trapnell Fund have no legal interest in land forming the northern boundary of Rossall School and, therefore, no legal interest in your pipeline. Please remove our names from the list of interested parties to whom you need to send correspondence. You do not need to, and we will not be responding to any of it.

All correspondence affecting Rossall School (for which the Trapnell Fund provides scholarship funds) should be address to Dr Stephen Palmer, the Bursar, who has the authority of the Council of the Corporation of Rossall School to receive order notices from you on their behalf.

The Land Registry Office charge Land Referencing Services had discovered in the name of the Trapnell Fund (title LAN86570) relates to specific, identifiable School properties over which the Trapnell Fund has a legal charge, but this does not include land on the northern boundary.

I have the written consent of all trustees to instruct you accordingly. Please be advised, therefore, that we have no legal interest in the land under which Halite wish to lay a pipeline, and there is no need for you to send any consultation papers or maps to the Trapnell trustees.

Yours sincerely,

[Signature]

B E CLARK
Secretary, Trapnell Fund
SALTMOOR BARN, ASHFORD CARBONEL, LUDLOW, SHROPSHIRE SY8 4BU

26 April, 2011

Parma Kataria,
Land Referencing Services LLP,
e-Innovation Centre, SE003,
Shifnal Road,
Priorslee,
TELFORD TF2 9FT

Dear Mr Kataria,

Proposed Application by Halite Energy Group Ltd for a development consent order: Preesall, Saltfield and associated pipeline

Further to my letter of 24 March and our telephone conversation of 5 April, I am writing as the Secretary of the Trapnell Fund to confirm, on behalf of all trustees, that we have no legal interest whatsoever in land forming the northern boundary of Rossall School, where Halite is proposing to lay a pipeline in connection with an Underground Natural Gas Facility at Preesall.

The Land Registry Office charge you have noted (title LAN86570) relates to specific, identifiable School properties over which the Trapnell Fund has a legal charge. That charge does not include land on the northern boundary.

I have the written consent of all trustees to instruct you accordingly. Please be advised, therefore, that we have no legal interest in the land under which Halite wish to lay a pipeline, and there is no need for you or Halite to send any consultation papers or maps to the Trapnell trustees.

I trust this answers your concerns.

Yours sincerely,

[Signature]

B E CLARK
Secretary, Trapnell Fund
Our Ref : PRC/it : 30/15/01

5th August 2011.

K. Budinger, Esq.,
Chief Executive Officer,
Halite Energy Group Ltd.,
Unit 5, St. Georges Court,
St. Georges Park,
Kirkham,
Lancashire.
PR4 2EF

Dear Mr Budinger,

Further to my meeting with your representatives on 19th October 2010, I am writing to reconfirm that the Duchy of Lancaster will not enter into negotiations or agree terms for easements, wayleaves or leases in relation to the proposal for gas storage in the Wyre estuary until such time as the developer has obtained all necessary national and local consents.

The Duchy takes the view that where such projects of national importance are decided through a democratic planning process it would be inappropriate and premature to enter into any agreements prior to the necessary consents having been obtained.

I hope that this clarifies the position of the Duchy of Lancaster at the present time but if I can be of any further assistance then please do not hesitate to contact me.

Yours sincerely,

Paul R. Clarke, CVO, FRICS
The Chief Executive and Clerk of the Council

Direct Line 020  Telephone 020  Fax 020

Email
Website www.duchyoflancaster.co.uk
Dear Peter and Julia

PROPOSED UNDERGROUND GAS STORAGE (UGS) FACILITY AT PREESALL - EMERGENCY ACCESS ROAD

I write to confirm our recent discussions in regard to the road to your farm being nominated as our emergency road to the proposed underground gas storage site. In the course of our recent consultation process relating to the UGS Facility, a number of parties raised the issue that they were concerned that if there was an emergency on the site and that for some reason the permanent access road was closed, that we should have identified an alternative route to the compressor station, wellhead components or booster pump station. Based on our current work the route favoured is via Acre Lane, Clodds Lane and past Cote Walls Farm as shown on the attached plan. During our discussions, you confirmed that our proposed nomination and use of this route as a second emergency access was acceptable to you.

I trust this is still acceptable to you and would like to instruct our land agent, Will Bashall, to include the arrangements for the emergency access road in the new tenancy agreement which is being taken forward with you.

Please confirm that you are in principle in agreement to the nomination of the proposed emergency access by signing the attached copy of this letter and returning in the stamped addressed envelope provided (please could you both sign where shown). The arrangements can be formalised in due course as part of the new tenancy agreement.
If there is anything you wish to discuss or clarify, please do not hesitate to contact me on either of the following numbers:

Mobile – 07854
Office – 01772

Yours sincerely

[Signature]

BRUCE GIBSON
Senior Project Manager

[Signature]
Mr P G Taylor

[Signature]
Mrs J Taylor

[Signature]
Dated

[Signature]
Dated
2nd August 2011

Mr & Mrs P G Taylor

Dear Peter and Julia

PROPOSED UNDERGROUND GAS STORAGE (UGS) FACILITY AT PREESALL - EMERGENCY ACCESS ROAD

I write to confirm our recent discussions in regard to the road to your farm being nominated as our emergency road to the proposed underground gas storage site. In the course of our recent consultation process relating to the UGS Facility, a number of parties raised the issue that they were concerned that if there was an emergency on the site and that for some reason the permanent access road was closed, that we should have identified an alternative route to the compressor station, wellhead components or booster pump station. Based on our current work the route favoured is via Acre Lane, Clodds Lane and past Cote Walls Farm as shown on the attached plan. During our discussions, you confirmed that our proposed nomination and use of this route as a second emergency access was acceptable to you.

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If there is anything you wish to discuss or clarify, please do not hesitate to contact me on either of the following numbers:-

Mobile – 07854
Office – 01772

Yours sincerely

BRUCE GIBSON
Senior Project Manager

Mr P G Taylor
Mrs J Taylor

Dated
Dated
11th October 2011

Mr T Kearsley
Partington Group Ltd
204 Fleetwood Road
North Thornton-Cleveleys
Lancashire FY5 4EJ

Dear Mr Kearsley

Halite Energy Group Ltd

Thank you for your letter of 7th October 2011. I note your comment that disturbance to your business could be substantially mitigated by the work being carried out in your closed season between 5th January and 1st March and have passed this information on to Halite Energy Group Ltd.

Kind regards.

Yours sincerely

W J Bashall
Date: 06 October 2011

Ref: DMA/AMC

Mr W J Bashall

Dear Mr Bashall

RE: Halite Energy Group Limited

Thank you for your letter dated 26 September 2011.

I have no objections in principal to the pit for the directional drill being moved to the rear of our buildings, however, I would like to reiterate that if the work was carried out in our closed season (5 January to 1 March) this would cause much less disturbance to the running of our business.

I will be away from the office till 24 October 2011, should you require any further information in my absence please contact Robert Kearsley on 01235

Yours sincerely

T A Kearsley
Director
27 April 2011

Your Ref: Halic/NSR/188

Our Ref: 1021127

Halite Energy Group Limited
Unit 5, St Georges Court
St Georges Park
Kirkham
Lancashire
PR4 2EF

Dear Sirs

The Proposed Application by Halite Energy Group Limited for Development Consent Order (DCO) for the Preesall Saltfield Underground Gas Storage Facility

We refer to your letter of 21st April and previous correspondence in connection with the above.

We are now in receipt of your letter dated 19th April confirming you will meet our costs in connection with this matter. We have passed the correspondence to our lawyers who are dealing with this matter and shall revert to you shortly.

Kind regards

Yours sincerely

Carol Thomson

NPL ESTATES LTD

Fyle Chambers
105 West George Street
Glasgow G2 1PB
Tel. 0141
Fax. 0141
email .
www.nplestates.com

Registered Office: 100 Barbara Square, Manchester M2 3AB
Registered in England No. 3505485
12 April 2011

Our Ref: 1021127

Halite Energy Group Limited
Unit 5, St Georges Court
St Georges Park
Kirkham
Lancashire
PR4 2EF

Dear Sirs

The Proposed Application by Halite Energy Group Limited for Development Consent Order (DCO) for the Preesall Saltfield Underground Gas Storage Facility

We refer to our letter of 23rd March (copy enclosed) and your subsequent letter dated 4th April.

Given the timescale for comments and representations we would be obliged if you would please confirm that you will cover all reasonable costs incurred by us before completing your information request.

We look forward to hearing from you.

Kind regards

[Signature]

Alex Dornan
Projects Director

NPL ESTATES LTD

Fyfe Chambers
105 West George Street
Glasgow G2 1PB
Tel. 0141
Fax. 0141
email
www.nplestates.com

Registered Office: 100 Barbican Square, Manchester M2 3AB
Registered in England No. 3505485
Halite Energy Group Limited
Unit 5, St Georges Court
St Georges Park
Kirkham
Lancashire
PR4 2EF
Dear Sir/ madam

THE PROPOSED APPLICATION BY HALITE ENERGY GROUP LIMITED FOR
DEVELOPMENT CONSENT ORDER (DCO) FOR THE PREESSALL SALTFIELD
UNDERGROUND GAS STORAGE FACILITY.

With regards to your correspondence dated 18th March 2011 reference Halite/NSRFI/88/1 &
Halite/NSRFI/88/2, requesting information regarding land, rights or interests in our ownership
which could be subject to compulsory acquisition powers pursuant to your proposed DCO.
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IR's on this subject to our legal representative to ensure a comprehensive and speedy
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response please forward electronic copies of all letters, questionnaires and maps to my e-mail
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Should you wish to discuss anything in this letter please do not hesitate to call me.

Yours Sincerely

Alex Dorman
Projects Director
E-mail;

NPL ESTATES LTD

Fyfe Chambers
105 West George Street
Glasgow G2 1PB
Tel. 0141-
Fax 0141-
Email www.nplestates.com
Registered Office: 100 Barbirolli Square, Manchester, MS 3AB
Registered in England No 3505485
17th May 2011

Dear Mr. Budinger,

I enclose our response to the Halite Community Consultation.

Yours Sincerely,

June Jackson

cc Tom Carpen IPC, Stuart Perigo LCC, Gary Payne WBC
CONSULTATION REponse OF D.S., M.J. & R.S. JACKSON

17th MAY 2011

HALITE GAS STORAGE PROPOSALS 2011

1. Location and extent of salt deposits

There appears to have been no new geological investigations in the areas where the actual cavern locations are proposed.

Most of the current geological information is based on a reappraisal of existing data. Some work was undertaken on the Hay Nook test borehole, which is outside the red line development area, by Golder Associates.

Ruth Allington, technical assessor in her report following the Public Inquiry drew attention to the requirement for further geological investigation:

"The primary constraints on the number, location, preliminary design of caverns and scheme capacity at this site are thickness; depth and inclination of the salt bed; and the location and nature of faults".

"Given the fundamental importance of the geological structure to this scheme, it is surprising that evaluation effort has not been more focused in these areas in the form of a site investigation".

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

2. Suitability of the Preesall Saltfield for gas storage

It has been previously stated that the Preesall salt field is ideally suited for gas storage. This claim is not supported by the British Geological Survey report BGS Report CR/09/028. The BGS have made it very clear that they have not been able to comment on the quality or suitability of the salt for gas storage.

Dr. David Evans (British Geological Survey) submitted a report BGS CR/08/14 Review of Canatxx work relationship to mining in the Preesall Saltfield and comments on wet rockhead conditions. This report is referenced as a source of information in the Halite Geological Summary document.
Dr. Evans advised of the need for a full survey of the Preesall salt field:

"To assess fully the size and stability of caverns with marl roofs and those of neighbouring caverns, via a full sonar survey, if possible".

This work has not been undertaken.

3. Safety of salt cavern gas storage

Dr. David Evans (BGS) states in his Appraisal of an Underground Gas Storage Proposal at the Welton Oilfield, Lincolnshire 2004:

"Approximately 90% of underground storage facilities are in depleted oil and gas fields or aquifers. Salt cavern storage contributes approximately 10% of capacity and yet, from the reported incidents appears to be the environment in which the most gas escapes/leaks occur".

The Review of Some UGS Failures in the Mott MacDonald Preliminary Risk Assessment is not comprehensive. It does not reflect the number and extent of recorded loss of product incidents.

4. Current brinefield monitoring and maintenance

A rolling program of maintenance, safety work and monitoring of the brinefield was undertaken, formerly by ICI and subsequently by NPL Estates.

The 2002 Dipping, Hooking and Surveying Program undertaken by Ineos Chlor Ltd. and the NPL Geotechnics Factual Report on the Obsolete Wells at Preesall Brinefields 2003, both recommend that further assessments be undertaken.

The recent general monitoring and maintenance activities undertaken by Halite comprise some surface monitoring (which is ineffective in predicting catastrophic crown hole collapse).

"It is considered that ground level survey of surface markers cannot be used to show areas as likely to suffer imminent collapse". (Strata Surveys Risk Assessment Report No.7015/56, 1997).

Colin Harding, Geology Director Mott MacDonald, at the meeting at the North Euston on the 9th May 2011, agreed that surface levelling and dipping and hooking were not effective methods of detecting crown hole collapse.

When questioned on the delay in conducting sonar surveys on "at risk" wells, technicalities due to brine pressure release were cited. There are no different requirements for entry to a cavern for the purposes of sonar survey than those required for dipping and hooking. Dipping and hooking has taken place.
5. Location of faults

As previously discussed in item 1, further characterisation of the site is required.

As the geological structure has been re-interpreted and is now assumed to be a graben (strata dislocated by faulting to form a basin), it is more likely than not that more faulting will be found when a more detailed investigation is carried out.

Dr. Ruth Allington, technical assessor, in her report following the Public Inquiry remarks:

"Over large areas of the site, where proposed cavern locations have been indicated, there is no information whatever about the location or nature of faults".

Dr. David Evans comments in HSE RR605:

"Over much of the workable salt beds area onshore in the UK (mostly the Cheshire Basin, but including Wyre in Lancashire) exposure of rocks at surface is often poor, with thick glacial drift deposits blanketing the bedrock (solid) geology. A lack of exposure and also subsurface information in terms of boreholes and/or seismic reflection, mean that surface geology is not therefore well constrained. It is possible that site characterization (subsurface mapping etc. using high resolution seismic reflection data for example) may not yet have been adequately undertaken and that possible faulting of an area is as yet poorly constrained or even unrecognised".

It was confirmed at the meeting of 9th May 2011 that the deviated test bore at Barnaby Sands (mis-named Burrows Marsh) did not identify the location of the Burn Naze fault.

6. Subsidence Issues

a) Gas Interconnector

Dr. David Evans, BGS, states in BGS Report CR/09/037:

"The proposed siting of major infrastructure should take into account the locations of existing caverns within the worked area of the Preesall Saltfield in order to avoid the possible damage to infrastructure, and maintain safe operation of the storage facility."
(i) Catastrophic crown hole collapse

Dates of crown hole collapse BW50 and BW44 are predicted in Figure 4.2b Pipeline Subsidence Assessment.

The manner and timing of crown hole collapse cannot be accurately predicted.

Mott MacDonald appear to be attempting to use BW48 and BW 52 as templates to predict the manner and extent of future collapse at BW50 and BW44.

The collapse of BW 48 was sudden and of short duration. The original cavity of BW48 cannot in any way be considered comparable to BW50 and BW44.

The collapse of BW 52 was only noticed when it was observed that Grange Pool watercourse was flowing in both directions into it. The crown hole has developed in an erratic manner. In the late 70's it developed rapidly in a southerly direction. ICI unsuccessfully attempted to shore up the north side by depositing large quantities of clean stone. During the 90's Aggleby's Road collapsed to the north. This subsidence can certainly not be said to have stabilised.

As Aggilby's subsidence has not yet finally stabilised how may it be used as a template to predict the final dimensions and condition of BW50 and BW 44 following catastrophic collapse?

According to the appraisal submitted in the Pipeline Subsidence Assessment the collapse of BW50 and BW44 will not impact on the gas interconnector and yet mitigation measures are being proposed in regard to BW50 and BW44 in the case of worst case crown hole development.

This clearly indicates that the area is an unsuitable route in regard to the proposed gas interconnector.

(ii) Uncertainties regarding lower mine workings

The Geological Summary Report states that:

"The lower mine extent could not be reliably defined".

The Pipeline Subsidence Assessment states:

"The mapped lower mine may therefore have been influenced by post-mining dissolution, hence this state and boundary line of the mine should be considered uncertain"

The lower mine may well have had a limited height prior to flooding in the early 20th century. Due to uncontrolled brine pumping this is now very unlikely. In fact solution may have taken place some distance from the extraction point, the origin of the brine cannot be determined nor where and in which direction the source.

It is repeatedly stated in the Halite technical reports the brine extraction from the
bottom mine workings ceased post war (1956). This is inaccurate.

The Strata Surveys System Ltd. Risk Assessment Report No.7015/56, January 1997, when reviewing the mine site, refers to brine extraction from the bottom mine workings during the early sixties:

"In fact controlled brine extraction was continued in the Mine Site brine wells into the early 1960's although concern was expressed in the 1962 (Report W19/23/9 Stage 1 Vol.2 Part 1 Section 2.6). It was considered that solution of the lower salt horizon was occurring and thus extraction volumes were decreased. Thus, the ground below the mine must be considered very weak and liable to unpredictable settlement".

As no information is available in regard to the extent or condition of the bottom mine workings, there is no basis for the prediction that the bottom mine workings will not subside.

As the extent and condition of the bottom mine workings are an unknown factor, "safety zones" cannot be predicted.

b) Built Development – Higher Lickow Farm

In the Ineos Chlor 2002 Prescill Site Survey, Dipping and Hooking Report (Inquiry Document J/1/5a) concern is expressed about the farmhouse at Higher Lickow. BW 50.

"Consideration must be taken into account of the farmhouse in the vicinity as a collapse will significantly affect the property."

In the Preliminary Risk Assessment Report it is stated that the Higher Lickow farmhouse and buildings would provide an ideal location for a Security and Support Facility.

Halite is ignoring the high level of risk by siting training, health and safety accommodation, staff facilities, offices, a locker room, toilets, a canteen and maintenance workshop and parking for employees and visitors at this location.

7. Monitoring Cavities created under Barnaby Sands SSSI

Ruth Allington in her Report by the Technical Assessor following the Public Inquiry States:

"Monitoring of surface subsidence is acknowledged by all parties to be essential through precise levelling".
"However the appellant has not brought forward any proposals as to how this will be achieved over the area of salt marsh beneath which caverns are to be sited. The appellant's proposal to monitor subsidence at well head location's when the proposed caverns are offset from them as a result of inclined drilling could not provide meaningful data on cavern closure rates either for incorporation in future cavern designs or as a basis for the design and implementation of remedial measures."

As the proposed caverns under the SSSI cannot be adequately monitored, the site must be considered unsuitable for this type of development.

6. Golf Course

Halite/Canatxx has the right to extract minerals, in this instance salt, from under the golf course, subject to planning permission.

It is our understanding that owning the mineral rights does not confer the right to store gas in the cavities created following salt extraction as this would be a change of use, requiring a subsequent planning application.

The golf course area is within the red line development area. The siting of a multiple wellhead on and gas storage caverns under land owned by the golf course in effect would mean that it would become part of a COMAH site.

Halite refute this, written response to Wyre Group Community questions 28th April 2011.

"No. the course would not become part of the COMAH site."

The Seveso II Directive contains a specific article on land planning use (article 12) that specifies that Member States must ensure that the objectives of preventing major accidents and limiting the consequences of such accidents are taken into account in their land use policies and/or other relevant policies. They are required to pursue these objectives especially through controls on the siting of new establishments.

The objectives of the Seveso II Directive are

a) to prevent major accidents and limit the consequences of such accidents and

b) to maintain appropriate distances between establishments and residential areas, areas of public use and areas of particular natural sensitivity or interest.

The golf course is an area of public use. The proposed development would not accord with the objectives of the Seveso II Directive.
7. Wyre Way

Report to the Secretary of State for Communities and Local Government, Edward Simpson, Planning Inspector:

"The Wyre Way in the proposed development area is a well used public path; access to which is uncontrolled and unrestricted".

"Without imposing unreasonable restrictions on members of the public, there is no practical way in which any record of assessment could be made of how many members of the public may be in the vicinity of the development at the time of or in the event of a major incident. Nor is there any way that those members of the public could be protected from the effects of such an incident close to this important footpath".

"The Objectives of the Seveso II Directive are a) to prevent major accidents and limit the consequences of such accidents and b) to maintain appropriate distances between establishments and residential areas, areas of public use and areas of particular natural sensitivity or interest".

"As a publicised linear recreational facility, The Wyre Way clearly constitutes an area of public use. The proposed development would not accord with the objectives of the Seveso II Directive".

8. Sewage Works

The Hackinsall Sewage Treatment Works is surrounded by the proposed Halite COMAH site. The STW is a significant element of public infrastructure. What mitigation measures are proposed by Halite in the event of an incident impacting on the STW, to prevent a serious public health problem?

9. Electrical Infrastructure

Why are the cables being laid from the Stanah Switchyard following a route on the east side of the Wyre, cutting through a large swathe of the Over Wyre countryside and necessitating a further river crossing at Stanah?

The Halite preferred proposed electrical supply route crosses two main watercourses Grange Pool and Burrows Pool and passes through land where ground stability is questionable; the Higher Lickow Farm area and in close proximity to the BW48 subsidence and BW 97, where subsidence is imminent.

It then continues to wend its way through areas noted for their sky lark population and the presence of great crested newt.

Surely it would be more cost effective and environmentally acceptable for the electrical supply cables to cross the river with the brine discharge pipe and continue on the west bank of the river to the Stanah switchyard.
10. Gas Interconnector to Nateby

The Wyre Power Station Supply Pipeline Environmental Statement remarks that:

"The avoidance of peat is a key pipeline routing consideration. Peat is soft, compressible and has a low shear strength, which is likely to raise significant geotechnical (for instance trench stand up time) and constructability (for example ability to take the weight of construction traffic) issues. Furthermore it is very difficult to reinstate the working width on completion of construction activities".

It has also been noted that gas pipelines which cross peat in the area have shown a tendency to rise towards the surface.

The traditional pipeline corridor is to the south, why have Halite chosen a northerly route over moss land?

12. Future Development

Halite has not ruled out the expansion of the gas storage site. As maps produced by Halite do not indicate any further areas that are not covered by safety exclusion zones, where would this area for further expansion be located?

OVERALL CONCLUSIONS

The developer’s proposals are not based on through survey work of the development area, taking into account past present and future local conditions and fall short of proving that those proposals are practical, realistic and are not harmful to the local population and the environment.

There is insufficient information available to properly assess whether this is an acceptable location for this type of development to provide justification for affecting the rights of others.

D. S. Jackson    M.J. Jackson    R.S. Jackson
17 June 2011

Dear Mrs Jackson,

Many thanks for your letter of 17 May and for your detailed consideration of our Project proposals. Your feedback and concerns are very important and I hope that this letter will provide you with clarity on the issues which you raise, which I will respond to in order.

1. Location and Extent of Salt Deposits

You rightly point out that the technical assessor drew attention to the requirement for further geological investigation and new geological information has been obtained following the last public enquiry. This includes:

- Drilling at an angle Burrows March (Barnaby Sands) borehole in order to obtain information from beneath Barnaby Sands
- Drilling the Hay Nook borehole and undertaking insitu pressure and permeability testing in three zones within the Hay Nook borehole
- Thermal property testing of the Hay Nook core
- 14 British Geological Survey reports
- Five geophysical survey lines of the dry mine area
- Sonar surveys of brinewells 44-47, 49-51, 78, 98, 102 and MW6
- Hooking and dipping data
- Additional borehole data of the surrounding area made available by the British Geological Society through its website
- Improved fault definition through reinterpretation of geology using analysis of dip magnitude and dip direction
The BS EN 1918 -3 relating to underground gas storage refers to the extent of geological information in the following way:

'The exploration data shall be sufficient to decide about the technical feasibility of the site for the construction of salt cavities. A summary of the data should be included in a feasibility report about the exploration. This summary should also be used to define the most favourable zones for locating cavities, taking into account the depth and thickness of the saline layer, the distribution of insolubles and the proximity of possible tectonic zones.'

In measuring our data against the requirement above we consider that we have the necessary adequate geological information to identify the most favourable zones for cavern location, taking into account the depth and thickness of the salt, the distribution of insolubles and possible tectonic zones. Based on this information our current geological model has enabled the feasibility of constructing caverns to be assessed. As we are at the feasibility stage of our proposals, additional investigations on the salt marsh have not been undertaken due to the sensitive physical conditions of the area identified as suitable for cavern creation. If our application to the Infrastructure Planning Commission (IPC) for a Development Consent Order (DCO) is successful our model would be refined as further information became available from boreholes drilled during the construction stages of our Project.

2. Suitability of the Preesall Saltfield for Gas Storage

The British Geological Survey had a brief to provide expert opinion on the design and construction of caverns, not to assess to the suitability of the Preesall salt. This assessment was left to other rock mechanics and cavern design experts including leading expert in the underground storage of gas, Professor R.B Rokahr. For your information I have attached Professor Rokahr's letter to Halite, dated 07 March, sharing his conclusion, based on 30 years' experience in salt mechanics and cavern construction, that stable, gas-tight caverns can be constructed in the salt formation at Preesall.

In relation to the comment you cite from Dr David Evans regarding the need, if possible, to assess the stability of caverns with marl roofs via sonar surveys I can inform you that survey work has indeed commenced with topographical surveying, hooking and dipping being undertaken. It is recognised that these methods do not give definitive cavern shapes or roof mitigation rates but the combination of data
does give an indication of current cavern behaviour. We are investigating other methods to provide reliable survey data which would not be as time consuming as sonar surveying. You may well know that in recent years there have been significant improvements in respect to the control of discharges to the environment and the need for safe working practices. We take our responsibilities as a landowner seriously and, as such, are developing a programme to address monitoring the whole existing brinefield.

3. Safety of Salt Cavern Storage
The Mott MacDonald Preliminary Risk Assessment Report refers to the 2008 Health and Safety Executive report by the British Geological Survey entitled ‘An appraisal of underground gas storage technologies and incidents, for the development of risk assessment methodology’ (HSE report reference RR605 which you also refer to in your letter) prepared by Dr Evans which post-dates his appraisal for the Lincolnshire oilfield in 2004. The summary from the later report refers directly to natural gas storage failures.

4. Current Brinefield Monitoring and Maintenance
In relation to your statement regarding Colin Harding’s comments on surface levelling and dipping and hooking, it is Colin’s recollection whilst he commented that there are shortcomings with these methods, he also said that they can give useful information regarding cavern migration. He agrees that direct survey is the most accurate method of monitoring cavern migration and I have instructed the Mott MacDonald team to investigate the most efficient methods for monitoring existing brinewells.

You make reference to the Strata Survey report No 7015/56 of which we have only been able to source the first volume. If you have a full copy it would be much appreciated if you could make this available to us.

5. Location of Faults
As part of the extensive geological review undertaken by Halite, the location of faults data has been re-interpreted. Although no fundamental differences have been identified by the exercise, a precautionary approach was adopted using hazard zones. As a consequence our proposed Project occupies a significantly smaller geographical area than the plans promoted by Canatxx and considered at the last public enquiry.
The Burrows Marsh (Barnaby Sands) borehole did not encounter the Burn Naze fault – this is due to the fact that the borehole is located some 900 metres to the east of the fault and therefore would not be expected to penetrate it. There is a small, graben-defining fault in the vicinity of the Burrows Marsh borehole. However, the direction and inclined nature of the borehole means that the cored sections are to the west of that fault.

6. Subsidence Issues

a.) Gas Interconnector

i.) Catastrophic Crown Hole Collapse

The graph you refer to showing the different roof migration rates in the Pipeline Subsidence Report was designed to show only relative rates. The predicted time of the crown hole collapse is indicative and not intended to be the accurate prediction of an event. Whilst the failure of BW48 may have been sudden, it is probable that some surface deflection, or even minor cracking, had occurred prior to failure but this would have only been detected by regular monitoring or close inspection.

I agree that the Agglebys subsidence has not yet stabilised as the perimeter slopes have not yet reached long-term stable angles of repose. We consider that the Agglebys collapse can be used to form a predictive model by observing the mechanisms of instability and comparing these to other collapse features in the area as well as by comparisons to collapse mechanisms which occur in other mining or natural sink hole situations. The 'observational' approach, supported by comparison with theoretical mechanisms of failure, enables an indicative model to be developed. The collapse at Agglesby is within the anticipated hazard zone which has been developed using the 'observational' predictive model developed for this site.

ii.) Lower Mineworkings

It is agreed that the exact location of the boundary of the lower mine is not accurately known. However, the Strata Surveys report excerpts you quote appear to refer to the working of brine wells between the upper and lower mines for which we have the ICI records and which did indeed continue extraction into the 1960s. Such intermine wells were worked after 'bastard' brining of the lower mine ceased with each brinewell grouted to leave a significant grout cover above the lower mine. Figures in our Pipeline Subsidence Report illustrate these features. When 'bastard' brining in the lower mine took place, MW3 is recorded as having acted as the abstraction hole.
Dissolution flowpaths will have been confined within the immediate environs of the mine, with the mine pillars proving to be most susceptible. Nevertheless, it is acknowledged that some lateral solution may have been possible, hence the use of a significant hazard zone. It is not considered to be significant to surface infrastructure because of its depth. In addition, there is no evidence that surface settlement is occurring at present and we are not aware of any records or features which indicate that any significant movements have occurred as a result of general subsidence. As already mentioned, monitoring of the area is being undertaken.

b.) Built Development – Higher Lickow Farm
We have considered the stability implications of utilising the existing Higher Lickow Farm building for future use. Considerably more data has been taken into account that that available to Ineos Chlor when that report was produced.

7. Monitoring Cavities created under Barnaby Sands SSSI
It is technically feasible to monitor the ground levels over the proposed caverns under the SSSI by airborne or remote measurement techniques.

8. Golf Course
Our proposed natural gas storage caverns are situated well below the golf course which could have no possible access to them. The wellheads would be located in secure compounds outside of the golf course boundaries and therefore, there is no requirement for the golf course to become part of the COMAH site.

As discussed in the Preliminary Risk Assessment, the HSE's land use planning advice approach is risk-based. The HSE's PADHI methodology accords outdoor sports facilities a 'Level 2' sensitivity and therefore the HSE would not advise against a COMAH site development unless it placed the golf course in the inner risk zone.

The risks to users of the golf course are specifically addressed in section 4.9.7 of the Preliminary Risk Assessment. The likelihood of an accident affecting part of the golf course is very low and, as golf course users are necessarily mobile, they would be able to move safely if necessary. I should point out too that preliminary assessment by the HSE has confirmed our interpretation of this.

Planning authorisation to create and operate underground natural gas storage caverns in the area beneath the golf course will be applied for as part of the application to the IPC for a DCO.
9. Wyre Way

I agree with the comment you cite from Edward Simpson that there is no reasonable way of recording use of the Wyre and that any attempt to do so would be intrusion into the public's privacy. However, most COMAH sites have some form of public access in their vicinity, either by road, rail, waterway or footpath, and many have commercial developments within the risk zones. The Seveso Directive, as interpreted by UK law, does not require access to the vicinity of the site to be controlled. However, the risks to the users of public thoroughfares should be demonstrated to be sufficiently low. Section 4.9.6 of the Preliminary Risk Assessment demonstrates the risk to members of the public is extremely low, therefore meeting the requirement.

In preparing these new, condensed proposals, the design of the wellheads has been revised. Our plans show they are now located in concrete bunkers and mostly angled away from the Wyre Way. This further reduces what would already be a very low risk to members of the public using the route.

In light of the above, I consider that our proposals would comply with the necessary health and safety requirements, including the Seveso Directive.

10. Sewage Works

The risks to the employees of the Hackinsall Sewage Treatment Works (STW) are discussed in section 4.9.5.2 of the Preliminary Risk Assessment and shown to be low and it is worth pointing out that the STW is designed to be operated automatically for most of the time. Sewage works, by their nature, are not very vulnerable to damage by fire as they consist mainly of concrete tanks and much of the mechanical equipment is either below ground or submerged. The works operator (United Utilities) will have prepared contingency plans to be used in the event of major breakdown. In the unlikely event of a short operational problem, the health of local residents would not be in any danger.

11. Electrical Infrastructure

The preferred route for the 132kV dual circuit, as indicated on drawing A-9000-001-A1, is from Stanah to the Substation adjacent to the Gas Compressor Compound (GCC) following a route across land in the ownership of the Halite Energy Ventures. This would be an underground circuit, out of sight, but safely under the control of the
site owner. The option to run these cables on the west bank of the Wyre has been considered but none of this land is in Halite's ownership. Also, there may be contaminated land issues along part of the route and the overall length is approximately 1 km longer than the preferred east bank route.

The installation of the dual circuits would be a temporary disturbance. The cables would be laid in four sections between splice pits. It is estimated that installation would take three months to complete from the point where the cables are jointed at the south river crossing temporary compound on the east bank to the Substation adjacent to the GCC. Each cable trench would be approximately 1 metre wide, backfilled and restored to its former surface condition. Watercourses would be crossed by directional drilling.

The effect of the proposed Project on the local habitat will be assessed within the Environmental Impact Assessment. No ponds will be removed and a programme of mitigation will be agreed with Natural England and other relevant bodies for potential disturbance of great crested newts. Cable installation would take place outside the breeding bird season and pre-construction inspection would be carried out to ensure that appropriate mitigation is in place.

The cables would be armoured and only jointed at the splice pits. Subsidence is monitored across the site and is therefore not considered to be an issue.

12. Gas Interconnector to Nateby
The preferred pipeline route which we have selected and consulted on is considered to be the optimum one. It was chosen with particular regard to health and safety as proximity to buildings and the population at risk have been minimised.

It is true that routing a pipeline through peat will encounter technical difficulties in addition to those encountered in firmer ground. However, there are many examples of pipelines through peat soils. Additional construction measures are usually incorporated within the design to cope with the actual conditions anticipated. This is normal engineering practice.

13. Future Development
There are no current plans to develop the proposed Project beyond the plans for 19 caverns in the two polygons identified through the geology review. Any subsequent
application (and I have no knowledge of one or mandate to deliver expansion) would be subject to the same rigorous application procedures and scrutiny as those we are now following.

In conclusion, I would like to stress that, in preparing these revised and condensed proposals, safety has been given the highest priority. The results of the extensive work undertaken by the team have been available for review by the whole community. We appreciate that ours is a detailed and complicated Project and have shared the wide range of information and work undertaken in a variety of formats in order to encourage community engagement in our consultation.

If there is further information which you would like to discuss and explore, or if you would find it helpful to go through these issues with me and the team in person, I would be very happy to assist you. Please don't hesitate to contact me on 01772 672244 or email keith.budinger@halite.net to arrange a convenient time.

Yours sincerely

Keith Budinger
Chief Executive
Halite Energy

CC Tom Carpen IPC, Stuart Perigo LCC, Garry Payne, WBC
1. Location and extent of salt deposits

Most of the current geological information is based on a reappraisal of existing data. Some work was undertaken on the Hay Nook test borehole, which is outside the zones designated for the creation of natural gas storage caverns.

Ruth Allington, technical assessor in her report following the Public Inquiry drew attention to the requirement for further geological investigation:

“The primary constraints on the number, location, preliminary design of caverns and scheme capacity at this site are thickness; depth and inclination of the salt bed; and the location and nature of faults”.

“Given the fundamental importance of the geological structure to this scheme, it is surprising that evaluation effort has not been more focused in these areas in the form of a site investigation”.

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

2. Suitability of the Preesall Saltfield for gas storage

It has been previously stated that the Preesall salt field is ideally suited for gas storage. This claim is not supported by the British Geological Survey report BGS Report CR/09/028. The BGS have made it very clear that they have not been able to comment on the quality or suitability of the salt for gas storage.

Dr. David Evans (British Geological Survey) submitted a report BGS CR/08/14 Review of Canatxx work relationship to mining in the Preesall Saltfield and comments on wet rockhead conditions. This report is referenced as a source of information in the Halite Geological Summary document.
Dr. Evans advised of the need for a full survey of the Preesall salt field:

“To assess fully the size and stability of caverns with marl roofs and those of neighbouring caverns, via a full sonar survey, if possible”.

This work has not been undertaken.

3. Location of faults

As previously discussed in item 1, further characterisation of the site is required.

As the geological structure has been re-interpreted and is now assumed to be a graben (strata dislocated by faulting to form a basin), it is more likely than not that more faulting will be found when a more detailed investigation is carried out.

Dr. Ruth Allington, technical assessor, in her report following the Public Inquiry remarks:

“Over large areas of the site, where proposed cavern locations have been indicated, there is no information whatever about the location or nature of faults”.

Dr. David Evans comments in HSE RR605:

“Over much of the workable salt beds area onshore in the UK (mostly the Cheshire Basin, but including Wyre in Lancashire) exposure of rocks at surface is often poor, with thick glacial drift deposits blanketing the bedrock (solid) geology. A lack of exposure and also subsurface information in terms of boreholes and/or seismic reflection, mean that surface geology is not therefore well constrained. It is possible that site characterization (subsurface mapping etc. using high resolution seismic reflection data for example) may not yet have been adequately undertaken and that possible faulting of an area is as yet poorly constrained or even unrecognised”.

It was confirmed at the meeting of 9th May 2011 that the deviated test bore at Barnaby Sands (mis-named Burrows Marsh) did not identify the location of the Burn Naze fault.
4. Safety of salt cavern gas storage

Dr. David Evans (BGS) states in his Appraisal of an Underground Gas Storage Proposal at the Welton Oilfield, Lincolnshire 2004:

“Approximately 90% of underground storage facilities are in depleted oil and gas fields or aquifers. Salt cavern storage contributes approximately 10% of capacity and yet, from the reported incidents appears to be the environment in which the most gas escapes/leaks occur”.

The Review of Some UGS Failures in the Mott MacDonald Preliminary Risk Assessment is not comprehensive. It does not reflect the number and extent of recorded loss of product incidents.

The Halite Gas Storage website informs us “Did you know? Worldwide there are over 70 underground gas storage salt cavern facilities.”

From my brief research I have come across 25 sites where there is well documented evidence of loss of product incidents; some resulting in short term, long term and permanent evacuation of residents and others sadly resulting in injuries and fatalities.

5. Current brinefield monitoring and maintenance

A rolling program of maintenance, safety work and monitoring of the brinefield was undertaken, formerly by ICI and subsequently by NPL Estates.

The 2002 Dipping, Hooking and Surveying Program undertaken by Ineos Chlor Ltd. and the NPL Geotechnics Factual Report on the Obsolete Wells at Preesall Brinefields 2003, both recommend that further assessments be undertaken.

The recent general monitoring and maintenance activities undertaken by Halite comprise some surface monitoring (which is ineffective in predicting catastrophic crown hole collapse).

“It is considered that ground level survey of surface markers cannot be used to show areas as likely to suffer imminent collapse” (Strata Surveys Risk Assessment Report No.7015/56, 1997).

Colin Harding, Geology Director Mott MacDonald, at the meeting at the North Euston on the 9th May 2011, agreed that surface levelling and dipping and Hooking were not effective methods of detecting crown hole collapse.

When questioned on the delay in conducting sonar surveys on “at risk” wells, technicalities due to brine pressure release were cited. There are no different requirements for entry to a cavern for the purposes of sonar survey than those required for dipping and hooking. Dipping and hooking has taken place.
6. **Pressure build up and catastrophic brine release BW 45**

On the morning of 18 June 2011 a major eruption of brine from BW 45 occurred, flooding onto Back Lane, Preesall resulting in road closure and causing extensive environmental damage (photos attached).

The well had been surveyed 16.06.2010; at that time no build up of pressure was observed. The only theory as to the cause of the incident put forward by Halite was “sabotage”.

Despite a lengthy police investigation, the “sabotage” claim remains unsubstantiated.

Wyre Borough Council – 18 August 2011 – Consultation on proposed application to the IPC for a Development Consent Order

“The council consider that a full inquiry into the recent wellhead failure at BW45 should be carried out and the findings made public prior to the submitting of the application to the IPC”

Lancashire County Council – Consultation Response – 16 August 2011

LCC also consider it essential that:-

“the stability of the existing caverns which may determine the capability of the site been developed and the design layout of proposed infrastructure and access ways is established prior to the submission of any Development Order Consent to the IPC, particularly in view of the recent incident associated with Brine Well 45.”

The Mott MacDonald report into the incident is inconclusive.

It is imperative that the cause/causes of the recent incident at BW45 be determined and that information be applied to prevent or mitigate a similar event occurring at other redundant brine wells.

7. **Subsidence issues and built development Higher Lickow Farm**

Dr. David Evans, BGS, states in BGS Report CR/09/037:

“The proposed siting of major infrastructure should take into account the locations of existing caverns within the worked area of the Preesall Saltfield in order to avoid the possible damage to infrastructure, and maintain safe operation of the storage facility.”

(i) Catastrophic crown hole collapse

Dates of crown hole collapse BW50 and BW44 are predicted in Figure 4.2b Pipeline Subsidence Assessment.
The manner and timing of crown hole collapse cannot be accurately predicted.

Mott MacDonald appear to be attempting to use BW48 and BW 52 as templates to predict the manner and extent of future collapse at BW50 and BW44.

The collapse of BW 48 was sudden and of short duration. The original cavity of BW48 cannot in any way be considered comparable to BW50 and BW44.

The collapse of BW 52 was only noticed when it was observed that Grange Pool watercourse was flowing in both directions into it. The crown hole has developed in an erratic manner. In the late 70’s it developed rapidly in a southerly direction. ICI unsuccessfully attempted to shore up the north side by depositing large quantities of clean stone. During the 90’s Aggleby’s Road collapsed to the north. This subsidence can certainly not be said to have stabilised.

As Aggleby’s subsidence has not yet finally stabilised how may it be used as a template to predict the final dimensions and condition of BW50 and BW 44 following catastrophic collapse?

According to the appraisal submitted in the Pipeline Subsidence Assessment the collapse of BW50 and BW44 will not impact on the gas Interconnector and yet mitigation measures are being proposed in regard to BW50 and BW44 in the case of worst case crown hole development.

This clearly indicates that the area is an unsuitable route in regard to any gas storage infrastructure

(ii) Uncertainties regarding lower mine workings

The Geological Summary Report states that:

“The lower mine extent could not be reliably defined”.

The Pipeline Subsidence Assessment states:

“The mapped lower mine may therefore have been influenced by post-mining dissolution, hence this state and boundary line of the mine should be considered uncertain”

The lower mine may well have had a limited height prior to flooding in the early 20th century. Due to uncontrolled brine pumping this is now very unlikely. In fact solution may have taken place some distance from the extraction point, the origin of the brine cannot be determined nor where and in which direction the source.
It is repeatedly stated in the Halite technical reports the brine extraction from the bottom mine workings ceased post war (1956). This is inaccurate.

The Strata Surveys System Ltd. Risk Assessment Report No.7015/56, January 1997, when reviewing the mine site, refers to brine extraction from the bottom mine workings during the early sixties:

“In fact controlled brine extraction was continued in the Mine Site brine wells into the early 1960’s although concern was expressed in the 1962 (Report W19/23/9 Stage 1 Vol.2 Part1 Section 2.6). It was considered that solution of the lower salt horizon was occurring and thus extraction volumes were decreased. Thus, the ground below the mine must be considered very weak and liable to unpredictable settlement”.

As no information is available in regard to the extent or condition of the bottom mine workings, there is no basis for the prediction that the bottom mine workings will not subside. As the extent and condition of the bottom mine workings are an unknown factor, “safety zones” cannot be predicted.

In the Ineos Chlor 2002 Preesall Site Survey, Dipping and Hooking Report (Inquiry Document J/1/5a) concern is expressed about the farmhouse at Higher Lickow.

BW 50.

“Consideration must be taken into account of the farmhouse in the vicinity as a collapse will significantly affect the property.”

In the Preliminary Risk Assessment Report it is stated that the Higher Lickow farmhouse and buildings would provide an ideal location for a Security and Support Facility.

Halite is ignoring the high level of risk by siting training, health and safety accommodation, staff facilities, offices, a locker room, toilets, a canteen and maintenance workshop and parking for employees and visitors at this location.

8. Monitoring Cavities created under Barnaby Sands SSSI

Ruth Allington in her Report by the Technical Assessor following the Public Inquiry States:

“Monitoring of surface subsidence is acknowledged by all parties to be essential through precise levelling”.
“However the appellant has not brought forward any proposals as to how this
will be achieved over the area of salt marsh beneath which caverns are to be
sited.
The appellant's proposal to monitor subsidence at well head location's when
the proposed caverns are offset from them as a result of inclined drilling could
not provide meaningful data on cavern closure rates either for incorporation in
future cavern designs or as a basis for the design and implementation of
remedial measures.”

As the proposed caverns under the SSSI cannot be adequately monitored, the
site must be considered unsuitable for this type of development.

9. Golf Course

The Halite Hazardous Substance Application Drawing Number A-00100-P00
indicates that wellhead compound number 1, serving 5 proposed storage
caverns, is sited on land in the ownership of Knott End Golf Club.

The siting of a multiple wellhead on and gas storage caverns under land owned
by the golf course in effect would mean that it would become part of a top tier
COMAH site.

Halite refute this, written response to Wyre Group Community questions 28th
April 2011.

“No. the course would not become part of the COMAH site.”

Drawing Number A-00100-P would indicate that this area is in fact included in
the Hazardous Substance Consent Application area.

The Seveso II Directive contains a specific article on land planning use (article
12) that specifies that Member States must ensure that the objectives of
preventing major accidents and limiting the consequences of such accidents
are taken into account in their land use policies and/or other relevant policies.
They are required to pursue these objectives especially through controls on the
siting of new establishments.

The objectives of the Seveso II Directive are

a) to prevent major accidents and limit the consequences of such accidents
   and

b) to maintain appropriate distances between establishments and residential
   areas, areas of public use and areas of particular natural sensitivity or
   interest.

The golf course is an area of public use. The proposed development would not
accord with the objectives of the Seveso II Directive.
10. Wyre Way & Footpaths FP45, FP61 and FP43

Report to the Secretary of State for Communities and Local Government, Edward Simpson, Planning Inspector:

“The Wyre Way in the proposed development area is a well used public path; access to which is uncontrolled and unrestricted”.

“Without imposing unreasonable restrictions on members of the public, there is no practical way in which any record of assessment could be made of how many members of the public may be in the vicinity of the development at the time of or in the event of a major incident. Nor is there any way that those members of the public could be protected from the effects of such an incident close to this important footpath”.

“The Objectives of the Seveso II Directive are

a) to prevent major accidents and limit the consequences of such accidents and
b) to maintain appropriate distances between establishments and residential areas, areas of public use and areas of particular natural sensitivity or interest”.

“As a publicised linear recreational facility, The Wyre Way clearly constitutes an area of public use. The proposed development would not accord with the objectives of the Seveso II Directive”.

Footpaths FP45, FP61 and FP43 also intersect the proposed top tier COMAH site.

11. Sewage Works

The Hackinsall Sewage Treatment Works is in close proximity to Multiple Wellhead Compound Number1 and surrounded by the proposed Halite COMAH site. The STW is a significant element of public infrastructure.

In the event of an incident occurring at Multiple Wellhead Compound Number1, this would impact on the Sewage Treatment Works. Any disruption to this vital installation would result in a serious public health problem.

There is unrestricted access in regard to United Utilities employees and their sub contractors. In the event of a major incident there is no way of monitoring personnel in the area without placing unreasonable restrictions on access to the STW site.
12. Ability to Provide Effective Security and Emergency Access

A considerable area of Preesall would become a Top Tier COMAH site, if a Hazardous Substance Consent is granted and yet very little, if any consideration has been given to security.

There is a proposed Security Entrance at Higher Lickow Farm.

The COMAH site is intersected by tracks servicing the former brinefield (very popular with the youth of the area for a bit of rallying, also swimming in the subsidence areas is also regarded as fun).

The footpath network intersects the COMAH site, including the National Coastal Path, giving unrestricted access.

The presence of the Sewage Treatment Works gives unrestricted access to the site.

The Golf Course also gives access to members, guests and members of the public.

The farms in the area are another source of unrestricted access, family, friends, trade suppliers, reps, deliveries, produce collection, sub-contractors, insurers, vat men, vets, bank managers, EA, HSE – the list is endless.

Following the recent Halite claims of sabotage at BW 45, a 24 hr security service has been introduced, this failed to prevent a “traveller” setting up a site at one of Halite’s unoccupied properties at Burrows Farm.

Although many of the routes of access available to the general public have been outlined above; only one alternative access for emergency vehicles has been put forward by Halite.

Letter 25th May 2011, WJ Bashall, PFK Land Agency:

“Following the public consultation and review of options, Halite has decided to nominate a proposed secondary access route to their site for emergency purposes This route will use the adopted public highway as far as The Heads and then take access along the bottom part of Corcas Lane and then through the gate into field OS 4962 that is in your tenancy and following the hard stoned track towards the metal bridge over Grange Pool and thereafter onto the development site.”

The field referred to has been remapped by the Rural Land Register (RLA) as SD3545 4863, 08/10/2009. The maps used by Halite are not current.

This proposed emergency access route is ill conceived, impractical and hazardous.
Highgate Lane is single track with occasional passing places. Bridle path BW2 is single track and inadequately surfaced and directing emergency traffic onto this path would create a conflict with walkers and horse riders. The route passes in close proximity to BW 64, fenced off as subsidence is imminent.

Ruth Allington, the technical assessor at the Public Inquiry stated in her report:

“Canatxx have not identified the former salt mine workings on its maps and figures and appears not to have considered the potential impacts on surface and sub-surface infrastructure associated with these former mine workings, or the brine caverns.”

OVERALL CONCLUSIONS

The developer’s proposals are not based on through survey work of the development area, taking into account past present and future local conditions and fall short of proving that those proposals are practical, realistic and are not harmful to the local population and the environment.

There is insufficient information available to properly assess whether this is an acceptable location for this type of development to provide justification for affecting the rights of others.

In October 2007, the Secretary of State, following a lengthy Public Inquiry, agreed with the Planning Inspector’s decision and refused the granting of the previous Canatxx Gas Storage Planning Applications.

We believe that the Secretary of State’s reasons for refusal are still valid in the case of the current Halite proposed Hazardous Substance Consent Application.

D. S. Jackson  M.J. Jackson  R.S. Jackson
Dear DS, MJ & RJ Jackson

Thank you for your Consultation response which we received on the 4th October 2011 relating to the consultation on deemed Hazardous Substances Consent. Many of the points you raise are the same as those in your Halite Community consultation response dated 17th May 2011. However, I have sought to re-address these and your additional concerns in this letter, particularly in relation to the incident at brine well 45 in the time that has elapsed since the end of our formal consultation period on the 27th May 2011.

Taking each of your points one by one:

1. **Location and Extent of Salt Deposits**

   You rightly point out that the technical assessor drew attention to the requirement for further geological investigation and new geological information has been obtained following the last public enquiry. This includes:
   
   - Drilling at an angle Burrows March (Barnaby Sands) borehole in order to obtain information from beneath Barnaby Sands
   - Drilling the Hay Nook borehole and undertaking insitu pressure and permeability testing in three zones within the Hay Nook borehole
   - Thermal property testing of the Hay Nook core
   - 14 British Geological Survey reports
   - Five geophysical survey lines of the dry mine area
   - Sonar surveys of brinewells 44-47, 49-51, 78, 98, 102 and MW6
   - Hooking and dipping data
   - Additional borehole data of the surrounding area made available by the British Geological Society through its website
   - Improved fault definition through reinterpretation of geology using analysis of dip magnitude and dip direction.
The BS EN 1918-3 relating to underground gas storage refers to the extent of geological information in the following way:

‘The exploration data shall be sufficient to decide about the technical feasibility of the site for the construction of salt cavities. A summary of the data should be included in a feasibility report about the exploration. This summary should also be used to define the most favourable zones for locating cavities, taking into account the depth and thickness of the saline layer, the distribution of insolubles and the proximity of possible tectonic zones.’

In measuring our data against the requirement above we consider that we have the necessary adequate geological information to identify the most favourable zones for cavern location, taking into account the depth and thickness of the salt, the distribution of insolubles and possible tectonic zones. Based on this information our current geological model has enabled the feasibility of constructing caverns to be assessed. As we are at the feasibility stage of our proposals, additional investigations on the salt marsh have not been undertaken due to the sensitive physical conditions of the area identified as suitable for cavern creation. If our application to the Infrastructure Planning Commission (IPC) for a Development Consent Order (DCO) is successful our model would be refined as further information became available from boreholes drilled during the construction stages of our Project.

2. Suitability of the Preesall Saltfield for Gas Storage

The British Geological Survey had a brief to provide expert opinion on the design and construction of caverns, not to assess to the suitability of the Preesall salt. This assessment was left to other rock mechanics and cavern design experts including leading expert in the underground storage of gas, Professor R.B Rokahr. For your information I have attached Professor Rokahr’s letter to Halite, dated 07 March, sharing his conclusion, based on 30 years’ experience in salt mechanics and cavern construction, that stable, gas-tight caverns can be constructed in the salt formation at Preesall.

In relation to the comment you cite from Dr David Evans regarding the need, if possible, to assess the stability of caverns with marl roofs via sonar surveys I can inform you that survey work has indeed commenced with topographical surveying, hooking and dipping being undertaken. It is recognised that these methods do not give definitive cavern shapes or roof mitigation rates but the combination of data does give an indication of current cavern behaviour. We are investigating other methods to provide reliable survey data which would not be as time consuming as sonar surveying. You may well know that in recent years there have been significant improvements in respect to the control of discharges to the environment and the need for safe working practices. We take our responsibilities as a landowner seriously and, as such, are developing a programme to address monitoring the whole existing brinefield.
3. **Location of Faults**

As part of the extensive geological review undertaken by Halite, the location of faults data has been re-interpreted. Although no fundamental differences have been identified by the exercise, a precautionary approach was adopted using hazard zones. As a consequence our proposed Project occupies a significantly smaller geographical area than the plans promoted by Canatxx and considered at the last public enquiry.

The Burrows Marsh (Barnaby Sands) borehole did not encounter the Burn Naze fault – this is due to the fact that the borehole is located some 900 metres to the east of the fault and therefore would not be expected to penetrate it. There is a small, graben-defining fault in the vicinity of the Burrows Marsh borehole. However, the direction and inclined nature of the borehole means that the cored sections are to the west of that fault.

4. **Safety of Salt Cavern Storage**

The Mott MacDonald Preliminary Risk Assessment Report refers to the 2008 Health and Safety Executive report by the British Geological Survey entitled ‘An appraisal of underground gas storage technologies and incidents, for the development of risk assessment methodology’ (HSE report reference RR605 which you also refer to in your letter) prepared by Dr Evans which post-dates his appraisal for the Lincolnshire oilfield in 2004. The summary from the later report refers directly to natural gas storage failures.

The storage of natural gas in specially constructed salt caverns is a mature industry and the method is widely recognised as safe and environmentally friendly. In the UK, there are four existing facilities which, in over 30 years of operation, have never recorded a major incident. The longest established site used for natural gas storage was commissioned in 1979 at Hornsea Yorkshire and there are other sites in Cheshire and Teesside with further projects also under construction. We are committed to developing a safe and reliable Project and will comply with the strict guidelines set out by the Health & Safety Executive which recognises that salt caverns can provide a secure and environmentally sounds way to store gas.

Whilst the UK’s safety record in the underground storage of natural gas is excellent we do recognise that incidents have been recorded at sites in other areas of the world. I have enclosed an information sheet which explains why some of these incidents occurred and what our response has been which I hope you find helpful.

5. **Current Brinefield Monitoring and Maintenance**

In relation to your statement regarding Colin Harding’s comments on surface levelling and dipping and hooking, it is Colin’s recollection whilst he commented that there are shortcomings with these methods, he also said that they can give useful information regarding cavern migration. He agrees that direct survey is the most accurate method of monitoring cavern migration and I have instructed the Mott MacDonald team to investigate the most efficient methods for monitoring existing brinewells.

You make reference to the Strata Survey report No 7015/56 of which we have only been able to source the first volume. Again, if you have a full copy of the document it would be much appreciated if you could make this available to us.
6. **Pressure build up and catastrophic brine release BW 45**

Since writing this letter you have attended a meeting on the 19th October 2011 regarding the incident which I hope addressed your concerns on this topic. Our full technical assessment into the causes of the incident has been shared with the local community and key organisations and will also be included in our application to the IPC. As I pointed out on the 19th October, we have had confirmation from the HSE that it has no issues with the way we have responded to the incident and we are committed to being responsible owners of the land in our ownership.

7. **Subsidence Issues and built Development at High Lickow Farm**

a.) **Gas Interconnector**

   i.) **Catastrophic Crown Hole Collapse**

   The graph you refer to showing the different roof migration rates in the Pipeline Subsidence Report was designed to show only relative rates. The predicted time of the crown hole collapse is indicative and not intended to be the accurate prediction of an event. Whilst the failure of BW48 may have been sudden, it is probable that some surface deflection, or even minor cracking, had occurred prior to failure but this would have only been detected by regular monitoring or close inspection.

   As previously stated, I agree that the Agglebys subsidence has not yet stabilised as the perimeter slopes have not yet reached long-term stable angles of repose. We consider that the Agglebys collapse can be used to form a predictive model by observing the mechanisms of instability and comparing these to other collapse features in the area as well as by comparisons to collapse mechanisms which occur in other mining or natural sink hole situations. The ‘observational’ approach, supported by comparison with theoretical mechanisms of failure, enables an indicative model to be developed. The collapse at Agglesby is within the anticipated hazard zone which has been developed using the ‘observational’ predictive model developed for this site.

   ii.) **Lower Mineworkings**

   It is agreed that the exact location of the boundary of the lower mine is not accurately known. However, the Strata Surveys report excerpts you quote appear to refer to the working of brine wells between the upper and lower mines for which we have the ICI records and which did indeed continue extraction into the 1960s. Such intermine wells were worked after ‘bastard’ brining of the lower mine ceased with each brinewell grouted to leave a significant grout cover above the lower mine. Figures in our Pipeline Subsidence Report illustrate these features. When ‘bastard’ brining in the lower mine took place, MW3 is recorded as having acted as the abstraction hole. Dissolution flowpaths will have been confined within the immediate environs of the mine, with the mine pillars proving to be most susceptible. Nevertheless, it is acknowledged that some lateral solution may have been possible, hence the use of a significant hazard zone. It is not considered to be significant to surface infrastructure because of its depth. In addition, there is no evidence that surface settlement is occurring at present and we are not aware of any records or features which indicate that any significant movements have occurred as a result of general subsidence. As already mentioned, monitoring of the area is being undertaken.
b.) Built Development – Higher Lickow Farm

We have considered the stability implications of utilising the existing Higher Lickow Farm building for future use. Considerably more data has been taken into account that that available to Ineos Chlor when that report was produced in 2002.

8. Monitoring Cavities created under Barnaby Sands SSSI

It is technically feasible to monitor the ground levels over the proposed caverns under the SSSI by airborne or remote measurement techniques.

9. Golf Course

Our proposed natural gas storage caverns are situated well below the golf course which could have no possible access to them. The wellheads would be located in secure compounds outside of the golf course boundaries and therefore, there is no requirement for the golf course to become part of the COMAH site.

As discussed in the Preliminary Risk Assessment, the HSE’s land use planning advice approach is risk-based. The HSE’s PADHI methodology accords outdoor sports facilities a ‘Level 2’ sensitivity and therefore the HSE would not advise against a COMAH site development unless it placed the golf course in the inner risk zone.

The risks to users of the golf course are specifically addressed in section 4.9.7 of the Preliminary Risk Assessment. The likelihood of an accident affecting part of the course is very low and, as golf course users are necessarily mobile, they would be able to move safely if necessary. I should point out too that preliminary assessment by the HSE has confirmed our interpretation of this.

Planning authorisation to create and operate underground natural gas storage caverns in the area beneath the golf course will be applied for as part of the application to the IPC for a DCO.

10. Wyre Way

As previously stated I agree with the comment you cite from Edward Simpson that there is no reasonable way of recording use of the Wyre and that any attempt to do so would be intrusion into the public’s privacy. However, most COMAH sites have some form of public access in their vicinity, either by road, rail, waterway or footpath, and many have commercial developments within the risk zones. The Seveso Directive, as interpreted by UK law, does not require access to the vicinity of the site to be controlled. However, the risks to the users of public thoroughfares should be demonstrated to be sufficiently low. Section 4.9.6 of the Preliminary Risk Assessment demonstrates the risk to members of the public is extremely low, therefore meeting the requirement.

In preparing these new, condensed proposals, the design of the wellheads has been revised. Our plans show they are now located in concrete bunkers and mostly angled away from the Wyre Way. This further reduces what would already be a very low risk to members of the public using the route.

I still consider that our proposals would comply with the necessary health and safety requirements, including the Seveso Directive.
Footpaths FP45, FP61 and FP43 do fall in the COMAH site. However, it's important to stress that the key findings of our QRA show that the risk of a fatality to the public from above ground equipment is less than one in 100 million per year and the risk from below ground infrastructure, which includes the storage caverns and pipelines, is one in 120 million per year.

11. **Sewage Works**

The risks to the employees of the Hackinsall Sewage Treatment Works (STW) are discussed in section 4.9.5.2 of the Preliminary Risk Assessment and shown to be low and it is worth pointing out that the STW is designed to be operated automatically for most of the time. Sewage works, by their nature, are not very vulnerable to damage by fire as they consist mainly of concrete tanks and much of the mechanical equipment is either below ground or submerged. The works operator (United Utilities) will have prepared contingency plans to be used in the event of major breakdown. In the unlikely event of a short operational problem, the health of local residents would not be in any danger.

12. **Ability to Provide Effective Security and Emergency Access**

I would like to reiterate Halite's commitment to safety and security which remains our number one priority. The secondary access route has been added to the proposed Project as a result of feedback received during our consultation. The route has been developed in consultation with the Lancashire Resilience Forum who fully support our approach.

In closing I would reiterate that Halite has undertaken extensive and detailed geological work to prepare our revised plans for an Underground Gas Storage Project at Preesall and believe that a our proposed Project can be developed and operated safely and securely.

Yours sincerely

Keith Budinger
Chief Executive
Halite Energy
Dear Mrs Jackson

Thank you for your email dated 24th October addressed to Mr Budinger. I write to advise that a written response has been sent to you yesterday in the 1st class post in answer to your questions.

Regards.

Karen

Karen Archer
PA to Keith Budinger
Chief Executive
Halite Energy

Dear Mr. Budinger,
Darrell would very much appreciate a response to his questions.
Regards
June Jackson

From: Keith Budinger (mailto:keith.budinger@halite.net)
Sent: 15 October 2011 14:10
To: june jackson
Subject: Re: Preesall Salt Field and the Incident at BW45

Thank you Mrs Jackson,
We will respond accordingly.
Regards
Keith Budinger
On 14 Oct 2011, at 14:44, june jackson wrote:

Dear Mr. Budinger,
I attach a series of questions in relation to the incident at BW45. A response would be very much appreciated.
Regards,
June Jackson

__________ Information from ESET NOD32 Antivirus, version of virus signature database 6542 (20111014) __________

The message was checked by ESET NOD32 Antivirus.

http://www.eset.com
<QUESTIONS MEETING 19.doc>
QUESTIONS RELATING TO THE INCIDENT AT BW45 AND FORMER WORKINGS AT THE PREESALL SALTFIELD

Question 1

a. Can you produce details of monitoring regimes between the years 2003/2011 following Canatxx/Halite taking over?
b. Records of sonar survey results have been produced for 2010. Can you produce the sonar survey records for 2003 to 2010?

Question 2

What changes to the monitoring regime are proposed following the BW45 incident?

Question 3

How many other caverns have an airlock and can you identify them?

Question 4

How does Halite propose checking cavern casings to establish the condition of the pipe work, for instance pitting?

Question 5

Has BW45 been topped up with fully saturated brine?

Question 6

Where did Halite source the saturated brine?

Question 7

Bearing in mind the continued grumbling at BW78 and blow out at BW45, do Halite intend to alter the planning application regarding the gas interconnector and main electric incomer?

Question 8

Also bearing in mind the continuing grumbling at BW78 and blow out at BW45, do Halite intend to alter the planning application regarding the main access route?
Dear DS, MJ & RJ Jackson

I write further to your email dated the 14th October 2011 in relation to the incident at BW45 and your series of questions.

**Question 1**

(a) Can you produce details of monitoring regimes between the years 2003/2011 following Canatxx/Halite taking over?

**Answer**

I can produce details of level monitoring and pressure monitoring since Halite Energy Group was formed in July 2010. As I have no relationship with Canatxx I am not able to comment on records prior to Halite taking over.

(b) Records of sonar survey results have been produced for 2010. Can you produce the sonar survey records for 2003 to 2010?

**Answer**

Yes, like above I can produce details of sonar survey results since Halite Energy Group was formed in July 2010. As you will recollect the sonar survey for BW45 is summarised in the Report on the Assessment of Brinewell 45 Incident produced by Mott MacDonald for Halite Energy Group Limited in September 2011.

As mentioned previously I am not able to comment on records prior to Halite taking over.
Question 2
What changes to the monitoring regime are proposed following the BW45 incident?

Answer
As you may recollect in our presentation at the meeting on the 19th October 2011, we have conducted a full review of our monitoring and maintenance programme for all our existing wellheads and caverns. As described in the meeting, this has included a risk assessment of each wellhead. Oversight of all of our work has been provided by the Health & Safety Executive.

Question 3
How many other caverns have an airlock and can you identify them?

Answer
You will recollect from last Wednesday’s presentation that we stated at this stage we believe there are 13 other caverns with an airlock in them. Yes we can identify them.

Question 4
How does Halite propose checking cavern casings to establish the condition of the pipework, for instance, pitting?

Answer
You will recollect from last Wednesday’s presentation that we have conducted a full review of our monitoring and maintenance programme for all our existing wellheads and caverns. This review included a risk assessment. Within this assessment and our new programme, provision has been made to establish the condition of the pipework and casings.

Question 5
Has BW45 been topped up with fully saturated brine?

Answer
BW45 has been topped up by a combination of brine from BW78 and water from Agglesby Pond. This was required to complete the remediation work at BW45 in the safest manner and allow us to close down the incident.

Question 6
Where did Halite source the saturated brine?

Answer
See 5 above.
**Question 7**

Bearing in mind the continued grumbling at BW78 and blow out at BW45, do Halite intend to alter the planning application regarding the gas interconnector and main electric incomer?

**Answer**

As discussed in our presentation on the 19th October 2011, there is no impact on our application for an underground gas storage facility in Preesall. We have compared the results of CCTV and physical and geophysical surveys completed after the incident with high quality data gathered from a sonar survey of Brinewell 45 in June 2010. This work shows that the cavern is stable and the cavern floor and roof remain intact. Cavern instability neither caused, nor was triggered by the incident. There is therefore no reason to be concerned for any future cavern collapse or ground subsidence to occur in the adjacent area.

In summary as confirmed on Wednesday, the mode of failure at BW45 was mechanical, not geological.

**Question 8**

Also bearing in mind the continuing grumbling at BW78 and blow out at BW45, do Halite intend to alter the planning application regarding the main access route?

**Answer**

See 7 above.

I would be very interested in any information or evidence you may have regarding the “continuing grumbling” at BW78. As discussed on Wednesday, safety is paramount to Halite. In response to strengthening safety and security, we have introduced a range of new security measures including a 24 hour security ranger patrol. These new measures are to provide visible reassurance to the local community of our commitment to security and safety.

Our security ranger’s main purpose is to ensure that Halite and our tenants’ land remain secure from trespassers. In addition we are monitoring all wellheads to ensure that at all times they are only touched by Halite qualified personnel. As I expressed on Wednesday, Halite is committed to ensure that under no circumstances are any of these assets interfered with by external third parties. We have worked closely with the Health and Safety Executive and the Lancashire Constabulary’s Security Adviser and Crime Prevention Officers to improve security of all our land assets.

I am confident that you as a tenant of Halite and farmer with close proximity to our wellheads will alert us in instances where you suspect either trespassers or wellhead interference.
Thank you once again for your email and questions.

Yours sincerely

KEITH BUDINGER
Chief Executive
Halite Energy Group

Cc – S Perigo, Lancashire County Council, T Carpen, IPC
Dears Sirs

Please accept the following representations in relation to the proposed Application to the Infrastructure Planning Commission for a Development Consent order to construct and operate an Underground Natural Gas Facility at Preesall, Lancashire on behalf of Cardinal Allen R C High School and without prejudice to those comments that may be expressed formally by the County Council in due course and in response to your letter to Stuart Perigo of the Environment Directorate dated 10th May 2011.

This representation relates to the laying of a brine pipeline across part of the playing field at Cardinal Allen R C High School.

The school's overall concerns are to the proposed pipeline and associated infrastructure being located across an operational school site and in particular the consequential disturbance to the school that the proposed works might bring as part of and subsequent to the construction phases of the development.

There has been little information provided specifically in relation to the school site. There has been no information on the proposed construction sequence, timescales, addressing health & safety issues such as access to the land, open trenches, noise implications, especially if, as advised, a drilling rig is to be brought on site. In the absence of such information there are concerns that drilling and construction works may generate unacceptable levels of disturbance and particularly at sensitive times such as when exams are taking place. It is recommended that a Method of Work be prepared taking into account Building Bulletin 93 and Building Bulletin BB101 to establish what disruption may be caused, what the implications of such would be and what mitigation would be provided to ensure the school can continue to deliver its education curriculum in as normal a way as possible. There is no evidence to demonstrate that there are no alternatives which would preclude the need to cross the playing fields and which would consequently reduce or remove any disruption.

The implications of this element of the development on the school may be significant and it is suggested that consultation on these issues specific to the school should have been addressed at an earlier stage of the project. Irrespective, the impacts of such and the need for mitigation should be properly identified before any submission is made to the IPC and upon which the school and county council would reserve the right to comment upon as part of the assessment of any Development Order Consent.

Could you please acknowledge receipt of this email.

Suzy Jeffrey BSc MRICS
Principal Estates Surveyor
Property Group
Office of the Chief Executive
Lancashire County Council, Preston PR1 8RE
Telephone: 01772 7
Fax: 01772
Email:
Website: www.lancashire.gov.uk/property

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Lancashire, a place where everyone matters
Message from Will Bashall:

Dear Suzy

Thank you for arranging the meeting on 30th September at the school together with the Headmaster and the Business Manager. It was helpful for us to be able to explain the overall scheme within the context of the submission to the Infrastructure Planning Commission (IPC) and more specifically, the factors we have taken into account in relation to the route of the brine pipeline across the Fleetwood peninsula. It was also helpful to have a look on site and to see the school’s ecology area.

Dealing more specifically with the matters raised in your e-mail of 27th May as part of the consultation process, I have set out more information below.

I hope you will appreciate that the routing of the brine pipeline across the peninsula is not easy due to the physical constraints of both major and minor highways, existing buried infrastructure including pipelines, culverts and electricity cables, major residential development areas and protected sites. Our original intention was to follow the existing United Utilities’ (UU) long sea outfall pipe but this was not possible due to the environmental designation of the wood adjacent to Amounderness Way. We have therefore found an alternative route that broadly runs parallel to the UU pipeline from the King George V Playing Fields’ side of the tramway up to the sea wall at Rossall. As you will have seen from the consultation, the pipe is approximately 900mm in diameter and to lay it in the road would cause massive disruption and conflict with existing services, including drainage.

In order to minimise the disturbance to the school and in order to pass beneath the tramway and the Strand/Broadway road crossing, the proposal is to use directional drilling. The intention would be to directionally drill under the Strand/Broadway road junction from the Rossall School side to a reception pit in the top corner of the school’s ecology area adjacent to the UU building. A directional drill from under the tramway would also come to this same reception pit thereby avoiding the need to do any open trench work in the ecology area. The existing cleared area would be of sufficient size for a reception pit and it would be securely fenced off with access coming from the adjacent highway, rather than over the school ground. The construction of the reception pit would involve metal shuttering being knocked into the ground and the creation of a pit approximately 3m² and 4m deep.

To avoid the risk of disturbance to the school, the work could be scheduled to be carried out outside term time. This would also ensure there were no health and safety issues in relation to the pupils.

With regard to health and safety generally, this will be examined by the IPC as part of their process in considering Halite’s submission. Health and safety is a critical issue at all levels of the proposal and considerable work has been and continues to be done to ensure that the project is safe.

I note from our discussions that the school has a particular interest in ecology and have been awarded eco status on a number of occasions. I explained that as part of the submission, Halite are preparing an Ecology & Landscape Management Plan on their development site that seeks to enhance the existing ecology and landscape of the area. Halite would consider it to be part of their Corporate & Social Responsibility Policy if the school felt the pupils may gain something worthwhile from being involved in that or any other environmental impacts of the project. There will be a full Environmental Statement that is produced as part of the submission to the IPC.

I trust the above is of some assistance to you and the school’s Board of Governors. We left you with various documents that Halite have published in relation to the scheme but if you require anything further, please do not hesitate to contact me.

Kind regards.

Will Bashall

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From: christine stout
Sent: 06 October 2011 12:30
To: Subject: Cardinal Allen RC Secondary School

Message from Will Bashall:

Dear Suzy

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In order to minimise the disturbance to the school and in order to pass beneath the tramway and the Strand/Broadway road crossing, the proposal is to use directional drilling. The intention would be to directionally drill under the Strand/Broadway road junction from the Rossall School side to a reception pit in the top corner of the school’s ecology area adjacent to the UU building. A directional drill from under the tramway would also come to this same reception pit thereby avoiding the need to do any open trench work in the ecology area. The existing cleared area would be of sufficient size for a reception pit and it would be securely fenced off with access coming from the adjacent highway, rather than over the school ground. The construction of the reception pit would involve metal shuttering being knocked into the ground and the creation of a pit approximately 3m² and 4m deep.

To avoid the risk of disturbance to the school, the work could be scheduled to be carried out outside term time. This would also ensure there were no health and safety issues in relation to the pupils.

With regard to health and safety generally, this will be examined by the IPC as part of their process in considering Halite’s submission. Health and safety is a critical issue at all levels of the proposal and considerable work has been and continues to be done to ensure that the project is safe.

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Kind regards.

Will Bashall

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08/11/2011

Regulated by RICS