The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

Preesall Underground Gas Storage Facility, Lancashire

Application for Deemed Hazardous Substance Consent

<table>
<thead>
<tr>
<th>Regulation Number:</th>
<th>5(2)(q)</th>
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<tbody>
<tr>
<td>Document Ref:</td>
<td>4.1</td>
</tr>
</tbody>
</table>
| Author:            | Halite Energy Group Limited  
                    | Unit 5, St Georges Court  
                    | St Georges Park  
                    | Kirkham  
                    | PR4 2EF  
                    | T: +44 (0)1772 672244  
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| Date:              | November 2011 |
| Revision Number:   | 1         |
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1.0 Introduction

1.1 Halite Energy Group Limited (Halite) is applying for a development consent order (DCO) to construct and operate an Underground Gas Storage Facility (UGS) at Preesall, Lancashire together with associated Infrastructure (Project). As part of the application for a DCO, Halite is applying for deemed Hazardous Substances Consent pursuant to the Planning (Hazardous Substances Act) 1990 (as amended by Schedule 2, paragraphs 42 to 47 of the Planning Act 2008).

1.2 This document sets out information relating to the proposed application for a deemed hazardous substance consent. It also describes the pre-application consultation undertaken by Halite specifically in relation to the deemed hazardous substance consent.

1.3 The deemed hazardous consent is needed because the following hazardous substances will be held on the Project site:

1.3.1 Natural Gas

Natural Gas is classified as extremely flammable under Part 3 of Schedule 1 of the COMAH Regulations. The lower tier limit is 10 tonnes and the upper tier limit is 50 tonnes. The amount of gas stored on the caverns will mean that the facility will be an upper tier COMAH site.

1.3.2 Methanol

Methanol will be stored on site to inject into the underground gas storage caverns to prevent the formation of Methane Clathrate (Methane Hydrate). Less than 30 tonnes of Methanol is expected to be stored on site.

1.3.3 Glycol

Tri-Ethylene Glycol (Glycol) is used to remove excess water from the Natural Gas and as a heating medium. Glycol is not considered to be a dangerous substance under the COMAH Regulations.

2. Pre-Application Consultation in relation to deemed Hazardous Substances Consent

2.1 In addition to the general consultation on the Project, Halite undertook pre-application consultation on the proposed application for deemed Hazardous Substance Consent.
2.2 A meeting took place on the 21st April 2011 in Bootle, Merseyside between Halite and the Health and Safety Executive (HSE) to understand the process for obtaining a deemed hazardous substance consent as the Hazardous Substance Authority was now the Infrastructure Planning Commission (IPC) and not the Local Planning Authority (LPAs). The HSE had at this time received the consultation documents sent to all statutory consultees.

2.3 Halite explained the process behind the Quantitative Risk Assessment which was the document the HSE would use to give initial feedback on any future Hazardous Substance Consent application.

2.4 A letter was received from the HSE on 23rd May 2011 saying that if the Project did not change they would not advise against the development of the Project. (Appendix A).

2.5 On advice from the IPC the appropriate Form 1 was completed and a drawing prepared (Appendix B) showing the location of the Wellhead Compounds, Manifolds, Gas Compressor Compound (GCC) and the area for cavern development. These were submitted to the HSE and also to Lancashire County Council (LCC) and Wyre Borough Council (WBC) 13th September 2011 (Appendix C).

2.6 Although not a statutory requirement, a notice of proposed application for deemed Hazardous Substance Consent was posted in several locations around the Preesall site on 16th September 2011. One response was received from a landowner. This reiterated the same concerns as the same landowner had made in their section 42 consultation response in respect of the Project as a whole. Halite responded to the landowner. Both letters are contained at Appendix F. Another member of the public requested some further information which was provided by Halite.

2.7 Both LCC and WBC stated at a meeting with Halite’s Chief Executive on 22nd September 2011 that they had no other planning applications in the area of the proposed application for deemed Hazardous Substances Consent.

2.8 Several telephone conversations took place between the HSE and Halite regarding the proposed application after which a letter was received from HSE on the 12th October 2011 stating that when the IPC ask the HSE for an opinion the HSE will, if the Project has not changed, it is unlikely HSE would advise against the development of the Project. (Appendix E).
Appendix A
Halite Energy Group
(Preessall Underground Gas Storage Facility Consultation)
FREEPOST RSRC-UETY-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.
Will the proposed Underground Gas Storage Facility fall within any of HSE's consultation distances and if so what would HSE's advice be?

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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,

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 PREESSALL 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 Preeassall 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 Preeasall 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 Preeasall 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.

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).
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 951 4607.

Yours sincerely

Penny Taylor
Risk Communications Policy Unit
Appendix B
Development of Salt Caverns for storage of up to 630,000 Tonnes of Natural Gas
Appendix C
General application for Hazardous Substances Consent

The Planning (Hazardous Substances) Act 1990 – Section 7(1)
The Planning (Hazardous Substances) Regulations 1992 (Regulation 5)
Three completed copies of this form and plans should be sent to the City, Borough, District or County Council.

Question 1
Name and Address of Applicant
Halite Energy Group Ltd
Unit 5 St George's Court St George's Park
Kirkham, Lancashire
Postcode: PR4 2EF
Tel. No: 01772 672244

Question 1a
Name and Address of Agent (if any)

Question 2
Address or Location of Application Site
Preesall Saltfield
Stalmine
Wyre Estuary
Lancashire

Grid Reference: 335500 446000

Refer to accompanying Drawing No A.00100.P00 for location details of the proposed scheme

Question 3
Substance(s) covered by application

<table>
<thead>
<tr>
<th>Name</th>
<th>Entry number in Schedule 1 to the 1992 Regulations (see back of form)</th>
<th>Maximum quantity proposed to be present (in tonnes) t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas or any mixture of gases which is flammable in air, when held as a gas</td>
<td>Part C No. 68 (Part A No. 16 under the Planning Control of Major Hazards Regulations 1999)</td>
<td>630,000 Tonnes (Max. capacity of an individual gas storage cavern 140MCM)</td>
</tr>
</tbody>
</table>

† or kilograms in the case of substances with entry numbers 21, 26 or 34
Question 4
Manner in which substance(s) to be kept and used

Provide the following information for each substance covered by the application (referring to the substance location plan where appropriate)

(a) Tick one box below to show whether the substance will be present for storage only or will be stored and involved in a manufacturing treatment or other industrial process:

<table>
<thead>
<tr>
<th>Substance Entry number</th>
<th>Storage only</th>
<th>Stored and involved in industrial process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part C No. 68 (Part A No. 16 under the Planning Control of Major Hazards Regulations 1999)</td>
<td>Storage Only</td>
<td></td>
</tr>
</tbody>
</table>

(b) For each vessel to be used for storing the substance(s) give the following information:

<table>
<thead>
<tr>
<th>Vessel No*</th>
<th>Entry No of substance(s) to be stored in vessel</th>
<th>Installed above ground (yes/ no)</th>
<th>Buried (yes/ no)</th>
<th>Mounded (yes/ no)</th>
<th>Max capacity (cubic metres)</th>
<th>Highest vessel design temperature (°C)</th>
<th>Highest vessel design pressure (bar absolute)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salt Caverns</td>
<td>Part C No. 68 (Part A No. 16 under the Planning Control of Major Hazards Regulations 1999)</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>140MCM cubic meters</td>
<td>50</td>
<td>95 bar</td>
</tr>
</tbody>
</table>

*Identify by reference to substance location plan
*If "yes", specify whether or not it will be provided with full secondary containment

(c) State for each substance the largest size (capacity in cubic metres) of any moveable container to be used for that substance:

(d) Where the substance is to be used in a manufacturing, treatment or other industrial process(es), give a general description of the process(es), describe the major items of plant which will contain the substance; and state the maximum quantity (in tonnes) which is liable to be present in the major items of the plant, and the maximum temperature (°C) and pressure (bar absolute) at which the substance is liable to be present:

<table>
<thead>
<tr>
<th>Substance entry No</th>
<th>Description of process(es)</th>
<th>Major items of plant*</th>
<th>Max quantity (tonnes)</th>
<th>Max temp (°C)</th>
<th>Max pressure (bar absolute)</th>
</tr>
</thead>
</table>

*Identify by reference to substance location plan
Question 5
Additional Information

(a) Has any application for hazardous substance consent or planning permission relating to the application site been made which has not yet been determined? 

(b) Will any such application be submitted at the same time as this application?

If you have answered "Yes" to either of the preceding questions, give sufficient details to enable the application(s) to be identified.

Application: To the Infrastructure Planning Commission (IPC)
Proposal: Creation of an Underground Gas Storage Facility
Location: Preesall Saltfield, Saltmine Wyre Estuary, Lancashire

(c) Plans. Please list the maps or plans or any explanatory scale drawings of plant/buildings submitted with this application.

1) The accompanying Drawing No A-00100-P00 at 1:2500, defines the location of each multiple wellhead site and pipeline corridors connecting the wellheads to the Gas Compressor Compound, plus a Location Plan @ 1: 20000 identifying the location of the application site

(d) Give any further information which you consider to be relevant to the determination of the application.

To access the salt beneath the Wyre Estuary, which is a designated SSSI & Ramsar site, it is necessary to employ slant drilling techniques, together with conventional vertical borehole wells for some caverns created outside the estuary.

The angle of slant drilled wells may vary but will not be less than 15 degrees to the horizontal.

All wells will use 219mm internal diameter wellhead production risers and a maximum operating pressure of 95 bar has been used for the modeling, albeit the operating pressure on each cavern will be dependant upon the geology but will not exceed 95 bar. Wellheads have been sited to avoid the thermal radiation zones impinging on private residences.

The site will be registered as a COMAH Site with the Health & Safety Executive and a Pre-construction Safety Report for the sub-surface infrastructure will be submitted in due course.

In addition to natural gas it is envisaged that the following substances will also be stored on site:

1) Maximum on site methanol storage 12Te
2) Grease & oil lubricants - 20 cartridges.
3) Engine Oil - 2 drums 100 to 150 litres
4) Transformer Oil for electricity sub station 1 tonne to meet the requirements of Bs148 Cl. I & II

Maximum design pressure for all surface gas infrastructure - 100 bar

We hereby apply for hazardous substances consent in accordance with the proposals described in the application

Signed
On behalf of
Halite Energy Group Limited

(insert applicant's name if signed by agent)
### PART A
#### TOXIC SUBSTANCES

<table>
<thead>
<tr>
<th>Hazardous substances</th>
<th>Controlled quantities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone Cyanohydrin (2-Cyanoprop-2-en)</td>
<td>(in tonnes, unless otherwise stated)</td>
</tr>
<tr>
<td>Acetaldehyde</td>
<td>200</td>
</tr>
<tr>
<td>Acrylonitrile</td>
<td>200</td>
</tr>
<tr>
<td>Aliphatic alcohol (2-Propan-2-ol)</td>
<td>200</td>
</tr>
<tr>
<td>Allylamine</td>
<td>200</td>
</tr>
<tr>
<td>Ammonia (anhydrous or as solution containing more than 50% by weight of anhydride)</td>
<td>19</td>
</tr>
<tr>
<td>Anilin</td>
<td>1</td>
</tr>
<tr>
<td>Aniline (Anilic acid and salts)</td>
<td>1</td>
</tr>
<tr>
<td>Benzene</td>
<td>20</td>
</tr>
<tr>
<td>Sodium cyanide</td>
<td>20</td>
</tr>
<tr>
<td>Hydrogen cyanide</td>
<td>20</td>
</tr>
<tr>
<td>Hydrogen fluoride</td>
<td>50</td>
</tr>
<tr>
<td>Hydrogen selenide</td>
<td>50</td>
</tr>
</tbody>
</table>

### PART B
#### HIGHLY REACTIVE SUBSTANCES AND EXPLOSIVE SUBSTANCES

<table>
<thead>
<tr>
<th>Hazardous substances</th>
<th>Controlled quantities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetylene (Ethylene) when a gas subject to a pressure not exceeding 620 millibars above that of the atmosphere, and not otherwise deemed to be an explosive by virtue of Order in Council No 50(4) as amended by the Compressed Airs Order 1947 (1), or when contained in a homogeneous or pure substance in cylinders in accordance with Order of Secretary of State No 9(5), made under the Explosives Act 1875(5), or</td>
<td>37</td>
</tr>
<tr>
<td>Ammonium nitrate and explosives containing ammonium nitrate where the nitrogen content derived from the ammonium nitrate exceeds 28% of the mixture by weight or other than—</td>
<td>38</td>
</tr>
<tr>
<td>(i) mixtures to which the explosives Act 1875 applies;</td>
<td>500</td>
</tr>
<tr>
<td>(ii) ammonium nitrate-based products manufactured chemically for use as fertilisers which comply with Council Directive 80/686/EC(6), or</td>
<td>500</td>
</tr>
<tr>
<td>(iii) compound fertilisers</td>
<td>1000</td>
</tr>
<tr>
<td>Aqueous solutions containing more than 60 parts by weight of ammonium nitrate per 100 parts by weight of solution</td>
<td>50</td>
</tr>
<tr>
<td>Ammonium nitrate-based products manufactured chemically for use as fertilisers which comply with Council Directive 80/686/EC and compound fertilisers where the nitrogen content derived from the ammonium nitrate exceeds 28% of the mixture by weight</td>
<td>2</td>
</tr>
<tr>
<td>2,2-Bis[bis(4-chlorophenyl)ethene]</td>
<td>5</td>
</tr>
<tr>
<td>1,1-Bis(benzhydryl)ethylene</td>
<td>5</td>
</tr>
<tr>
<td>tert-Butyl peroxypentane</td>
<td>7</td>
</tr>
<tr>
<td>tert-Butyl peroxypentane</td>
<td>7</td>
</tr>
<tr>
<td>tert-Butyl peroxypentane</td>
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<td>7</td>
</tr>
<tr>
<td>tert-Butyl peroxypentane</td>
<td>7</td>
</tr>
</tbody>
</table>

### PART C
#### FLAMMABLE SUBSTANCES (UNLESS SPECIFICALLY NAMED IN PARTS A AND B)

<table>
<thead>
<tr>
<th>Hazardous substances</th>
<th>Controlled quantities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquefied petroleum gas, such as commercial propane and commercial butane, and any mixture thereof, when held under refrigeration at a pressure of 1.4 bar absolute or less</td>
<td>65</td>
</tr>
<tr>
<td>Gas or any mixture of gases which is flammable in air, when held as a gas</td>
<td>65</td>
</tr>
<tr>
<td>A substance or any mixture of substances which is flammable in air, when held above its boiling point measured at 1 bar absolute, as a liquid or as a mixture of liquid and gas at a pressure of more than 1.4 bar absolute</td>
<td>65</td>
</tr>
</tbody>
</table>

### PART D
#### INTERPRETATION

In this Schedule:
(a) references to percentages are references to parts by weight of the substance per 100 parts by weight of the solution;
(b) "compound fertiliser" means a fertiliser containing ammonium nitrate and phosphoric acid or potassium;
(c) Part C does not include a substance which is within Part A or Part B.
Appendix D
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 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 10th October 2011 and online at www.halite-energy.co.uk.

Anyone who wishes to make representations about this application should write to Brian Stanley at Halite Energy Group Limited, Unit 5, St George’s Court, St George’s Park, Kirkham, Preston, PR4 2EF by the 3rd October 2011.

Signed: ........................................
On behalf of Halite Energy Group Limited
Dated: 16th September 2011
Mr. Brian Stanley  
HALITE Energy Group  
Unit 5, St Georges Court  
St Georges Park  
Kirkham  
 Preston  
Lancashire  
PR4 2EF

Your Ref:  
Hazardous Substance Consent Application

Our Ref:  
TRIM 4.2.1.2193.

Dear Mr Stanley

I have included in this letter, the type of response HSE will provide to the IPC with regards to an opinion they might request from us as part of the next consultation phase of the approval process.

HSE will still 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 (HSA).

It is clear from the proposal documentation that the site would need to obtain consent from the 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 pre-consent enquiry dated 22 August 2011, 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 differ from the one that this conclusion is based upon (your latest consultation documents received 22 August and updated redline drawing dated 22 September 2011), HSE’s advice to the IPC may be affected. If necessary, we can discuss alternative storage arrangements to allow the granting of consent.

Yours sincerely,

VC Martin
HM Specialist Risk Assessor
24th October 2011

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 Hallie 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 Pressall and believe that a our proposed Project can be developed and operated safely and securely.

Yours sincerely

[Signature]

Keith Budinger
Chief Executive
Halite Energy
30th SEPTEMBER 2011

HALITE ENERGY GROUP LIMITED PROPOSED APPLICATION FOR DEEMED HAZARDOUS SUBSTANCE CONSENT

Preesall Saltfield
Stalmine
Wyre Estuary
Lancashire

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 Presall Saltfield for gas storage

It has been previously stated that the Presall 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 Canatxw work relationship to mining in the Presall 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 ect. 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 Preeassall 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.