STATEMENT TO BE READ AT THE PLANNING INSPECTORATE INQUIRY HELD AT NORTH EUSTON HOTEL INTO CANATXX SECOND PLANNING APPLICATION (02/04/1415) FOR NATURAL GAS STORAGE FACILITY, PREESALL SALTFIELD, LANC.

INTRODUCTION.

My name is Mike Tucker. I live in Stalmine on Carr End Lane, on the west side of the village nearest to the proposed gas storage facility. I am a qualified professional Mechanical Engineer. I have worked for the C.E.G.B. in the power generation industry and in the chemical industry for I.C.I. This latter post was at the former Hillhouse Works at Thornton. I am now retired.

I have limited myself to ten points which I would like to address and hope not to take up more than ten minutes of your time.

1) LACK OF ENERGY POLICY.
The use of natural gas to generate ever higher proportions of U.K. electricity requirements has dismayed me for some fifteen years or more. Base load requirements are ideally suited to a balance of nuclear, oil and coal generation with gas perhaps used for 'peak lopping'. If there had been any sort of forward planning at all we would not be facing a possible energy crisis. However, as we are where we are I resist the urge to go on at length! The point I want to make is that I would not wish the residents of Over Wyre and the north Fylde to be inflicted with a gas storage scheme just because of the absence of any energy policy by successive governments.

2) PROFIT VERSUS "NATIONAL INTEREST".
Considerable emphasis has been placed by Canatxx on the "National Interest" and the "Strategic Interest". I would request you to view these claims with some cynicism. It is my view that the storage will be used purely as a trading facility in order to buy cheaply and sell at a profit. I have nothing whatsoever against profit but would not want profit to be confused with the "National Interest". If there were to be a national emergency it is probable that the price of gas would have risen steeply beforehand, the gas in storage sold and the facility be empty.

3) GEOLOGY.
I have no knowledge whatsoever in the field of geology. However, to say the least, it does seem somewhat casual that an application of this magnitude can be declared by Canatxx to be a safe development on the basis of just two boreholes. I believe that the whole site covers some 256 hectares (630 acres) and whilst the storage facility will not cover all of this area I would have thought that considerably more investigation should have been undertaken before the scheme was submitted to the planning authorities and the Health and Safety Executive.
4) **OVER WYRE COUNTRYSIDE.**
While there has been considerable expansion of the population of Over Wyre in the last twenty or thirty years it is still very much a country district and the roads reflect this. For example most have no pavements, kerbs or lighting. If the scheme were to go ahead there would be up to 120 H.G.V. movements (as opposed to round trips) per week during the ten years of construction. In addition there will be many smaller vehicles going to and from site. This may not be much on, say, the M6 but will have a considerable impact on the generally tranquil nature of the Over Wyre countryside. Indeed, it will ruin the lives of some residents and possibly give them no alternative but to sell their homes at much below market value — after all who wants to live on a construction route for a decade?

5) **WYRE BOROUGH LOCAL PLAN.**
If I were to submit a planning application for a house in the locality where Canatxx propose to site their buildings and compressor station it would be turned down by Wyre Borough as the development would contravene the Wyre Borough Local Plan. I can see absolutely no reason why the Canatxx application should be treated any differently, especially as it covers such a large area and will require significant infrastructure works.

6) **SUBSIDENCE.**
You may have heard about the massive subsidence just to north of Height o’th’ Hill Farm. When I was first told about it I imagined a hole about the size of a small detached house but, as you will see, it is a huge crater.

As I understand it some of the caverns will be under land. Should the gas storage project ever go ahead at some point the caverns will have to be decommissioned. It is inevitable that after decommissioning the caverns will eventually collapse. This factor also has implications for flood defences. Why should we even contemplate leaving future generations such a legacy? In this context it is noted that Canatxx have only undertaken to look after the site for five years after it ceases to operate.

7) **THE CANATXX APPLICATION.**
I have concerns over the accuracy of some features in the application. These range from the niggle that the supporting documentation refers to Carr End Lane as follows:—

"Footpaths are provided on both sides of the road and street lighting is provided."

This is just not true over most of the length of the lane.

Much more seriously the planning application refers to "... a natural gas storage facility for 2 million tonnes of natural gas ...". However, in the supporting documentation it refers to 60 billion standard cubic feet. This equates to just over 1.2 million tonnes which is a considerable discrepancy. I understand that the application has now been scaled back to the latter figure.
Similarly the planning application refers to there having to be mineral extraction of 10 million cubic metres. This is surely incorrect. If 2 million tonnes of natural gas were to be stored at 75 Bar there would have to be some 37 million cubic metres of rock salt removed. This would rise to 112 million cubic metres if the storage pressure were as low as 25 Bar. Even if the capacity were to be reduced to 1.2 million tonnes of natural gas stored at 75 Bar this would still involve the removal of 22.4 million cubic metres of rock salt. That is still over double the figure quoted in the planning application.

My concern is that if there have been errors of this nature which can be identified there may be others which have not come to light.

8) **INSPECTION OF PRESSURE VESSELS AND STORAGE CAVERNS**.
What follows may seem like a diversion but I assure you it does have a point!

As mentioned at the beginning of my submission I worked for I.C.I. at Hillhouse Works. One of the plants there was VC4, a petrochemical plant which was capable of producing in excess of 200,000 tonnes of vinyl chloride per annum. Vinyl Chloride, like natural gas, is a flammable chemical. The largest pressure vessel on the plant, and indeed Hillhouse Works, was the V.C. Sphere. This was a spherical vessel some 60 feet (18.288 metres) in diameter and was used to contain up to 2,500 tonnes of liquid Vinyl Chloride at a pressure of 2 to 3 Bar.

Even though Vinyl Chloride is not corrosive this vessel was subject to regular external ultrasonic thickness testing and every five years it was emptied, decontaminated and subjected to a rigorous internal and external examination. At the end of each inspection we were as certain as we could be that the vessel was suitable for a further five years service.

With the proposed storage scheme the gas is to be stored in an unspecified number of caverns of an unspecified size. I don't think I can express strongly enough my concern that it will never be possible to inspect these caverns other than with, possibly, a camera. This can never be anywhere near as effective as having a trained inspector go over the chamber with the proverbial toothcomb. Similarly, it will never be possible to pressure test the caverns above their operating pressure for fear of destroying the integrity of the rock salt. Both these factors mean that normal inspection and testing procedures cannot be followed – something that would not be tolerated at ground level. It follows that the possibility of leakage from the caverns must be of a considerably higher order than from a well maintained pressure vessel.

9) **LOCATION OF GAS STORAGE IN VICINITY OF POPULATION**.
Given that there must be doubt as to the capacity of the caverns to contain the natural gas without any leakage I would argue that a scheme of this nature should follow best practice. Not just in the U.K. but from anywhere in the World where there is experience of gas storage in salt deposits. This is particularly true as the caverns proposed are at the
relatively shallow depth of about 366 metres. As a first line of defence this means that there should be reasonable distance between the storage facility and any population. In Stalmine there are some 650 dwellings housing some 1,500 people. I do not regard a mile separation as reasonable. A similar argument applies to the village of Preesall which is even closer.

Fleetwood and Thornton, much larger centres of population, are under two miles from the proposed facility. I cannot, therefore, agree with the statement by Canatxx that the area is “lightly populated”.

In some States of the U.S.A. such storage caverns have to be at least three miles from centres of population. Why should lesser standards be acceptable in the British Isles?

This contention has surely been reinforced by events at the fuel storage depot at Hemel Hempstead late last year.

10) **CAPACITY OF PROPOSED NATURAL GAS STORAGE FACILITY.**
The initial application was for a storage capacity of two million tonnes of natural gas. Even the reduced figure of 1.2 million tonnes is such a huge quantity that it is difficult to comprehend. Compressed natural gas is not directly comparable with liquid Vinyl Chloride but, taking a simplistic view, in tonnage terms this would require 480 of the 60 feet diameter V.C. spheres mentioned earlier. One can perhaps just imagine them lined up along the River Wyre from the large roundabout near the River Wyre public house to the North Euston Hotel at Fleetwood, a distance of some five miles or 26,400 feet! Even with the spheres touching there would only be space for 440 – I wonder where could we put the rest?

Unfortunately, as I mentioned, this is a simplistic view. The natural gas will not be liquefied but gaseous. If it is assumed that it will be stored under 75 Bar, the maximum pressure in the caverns, 1.2 million tonnes of natural gas would take up a volume of 22.4 million cubic metres. This massive volume would require some 7,000 spheres 60 feet diameter to accommodate it. I do not propose to suggest a location for these! What I am trying to demonstrate is the sheer scale of the application and the reason that local residents, including myself, are so concerned that even a minor escape could be catastrophic to those that live in the vicinity of the proposed scheme.
OPEN FLOOR HEARING AT STALMINE VILLAGE HALL.
(14:00 For 14:30 on Thursday, 18th. October, 2012.)

THE PROJECT.
In National Interest? Other sites are available (Barrow, Portland et cetera) which are offshore and not adjacent to centres of population. This site has only been chosen because caverns can be at shallow depth of about 1,000 feet and the storage pressure close to that in the N.T.S. That said the installation more likely to be used as a trading facility than in the ‘National Interest’ and could well be empty when most needed.

Geology. I have little knowledge of geology but it is my understanding that even after ten years only a small number of boreholes have been drilled so the geology is not completely understood. Risk of old workings, gas migration, et cetera.

Quantity of gas stored at 75 Bar. 650,000 tonnes, a huge amount at high pressure - compare with 260 V.C. Spheres. See page 3 of ‘Canatxx.001’

Original application for 2,000,000 tonnes. If this application approved seems likely that further applications will be submitted (ref. MLT conversation with Mr. Budinger).

OPERATION AND SECURITY.
Operation. However careful the operator is accidents do happen in the best of companies (e.g. B.P.) and if approved the project would be sold on to such an operator.
Classification. Will be a major hazard installation. Tier 1 C.O.M.A.H. There is no way the footpath along the River Wyre could remain open for both safety and security reasons.
Security. Sad fact that in this day and age this will need to be significant.
Evacuation in event of Incident. Over Wyre only really two ways out, north and south on A588 (more a country lane for most part). Emergency services trying to access site. Example of accident on Shard Bridge – traffic deadlock for some hours.
Fleetwood – only one way out.

LOCAL IMPLICATIONS.
Local population. Some 80,000 plus living within three miles. I cannot express strongly enough my feelings that the application totally ignores the implications of this fact.
Construction time. This is not like having a house built next door but will last some 10 years. Disruption and noise.
Proposed ‘life’ of project is some thirty years. Are Halite prepared to put up a long term bond (100 years plus) for maintenance of site (particularly collapsed caverns) after closure?
Local Area. Farmland and marshland. The project will have major impact on this and local residents.

CONCLUSION. After ten years the local population have really had enough and in some ways have ‘Battle Fatigue’. I am hopeful that the I.P.C. will recommend refusal.