

J/1/16

Canatxx Gas Storage Ltd

Public Inquiry

D. S. Jackson

March 2006

CLOSING SUBMISSION

Planning Application References

APP/Q2371/A/05/183799

APP/HSC/05/07

1. INTRODUCTION

1.1 Looking back to the 11th of October 2005, when this Inquiry commenced at the Marine Hall, a common thread has run through the whole proceedings. This has been the appellant's reluctance to provide information in a timely fashion. The lack of geological information, in particular, has been a cause for delay and only increased the serious doubts and concerns already being felt, in relation to the proposed development.

1.2 My own opinion is that this problem goes right back to the submission of the first planning application, I have always felt that the first step should have been to establish whether the geological conditions could accommodate the development, before proceeding to planning.

1.3 As the appellant has acquired the land ownership over existing boreholes and mine workings and presumably have had the mineral rights, previously held in the ownership of Biffin Ltd. (NPL Estates) and prior to that ICI Chemicals and Polymers Ltd., transferred to them, I would assume this ownership, would also include the liability, in relation to the existing boreholes and mine workings.

1.4 Surely from a safety point of view, the onus would be on the appellant to obtain as much information as possible about the boreholes' past history, present condition and the possibility of any future safety hazards envisaged, regardless of whether the gas storage proposals proceed or not.

- 1.5 Regrettably, we have recently been informed, that it is Canatxx's intention to dispense with the services of our very experienced brinefield safety officer, Kevin Wardle, who has been responsible for carrying out the regular scheduled safety checks(J/1/26). Last time Mr. Wardle's services were dispensed with, when Canatxx took over control of the former brinefield, the result was security fences hanging over voids and the regular programme of surveys being put on indefinite hold.
- 1.6 It is vital that the safety of the general public and those who live and work on the former brinefield is ensured.

2. NEED.

2.1 Mr. Trimble, the appellant's professional witness on need, seemed to get himself into all sorts of difficulties and lost credibility. He started off by disagreeing with the fifth Joint Energy Security of Supply report figures. Mr. Trimble then went on to say that all of industry disagree with the figures in the fifth JESS report. When challenged to substantiate this statement, Mr. Trimble changed tack and said that no one had read the report, as it was badly advertised.

2.2 When questioned on the National Transmission Service's ability to accommodate gas from this very large proposed facility, Mr. Trimble could foresee no problems, a contrary view to that of the appellant's press release(Appendix J/1/3). A Canatxx spokesman in an article in the publication European Gas Markets, 15 July 2004 stated "The limitation will ultimately be what Transco can accommodate."

2.3 Alan Johnson, Secretary of State at the Department of Trade and Industry stated in a House of Commons debate(CD59), on the 12th of January 2006, that;

"Overall Britain is in a strong position, we have a broad range of energy supply and a balanced mix of energy generation."

2.4 I personally believe that it is important to maintain this balance and not be reliant on the political vagaries of the international hydrocarbons market. It is a mistake to become too dependant on gas.

- 2.5 In 2001, The Gas Exporting Forum (GECF) was established(J/1/18). The group's inaugural meeting was held in Tehran in May 2001. GECF, comprising 13 member states, together control about two-thirds of the world's natural gas reserves. The forum members are Algeria, Bolivia, Brunei, Egypt, Indonesia, Iran, Libya, Malaysia, Nigeria, Oman, Qatar, Russia and Venezuela. GECF insist that this will not lead to a cartel arrangement like OPEC, but this remains to be seen.
- 2.6 Recently, during the BBC Question Time programme from Moscow, on the 30th of March, 2006, the RT Hon Douglas Alexander MP, Minister of State for Europe, remarked;
- “ As world energy demand rises, a country with extraordinary natural resources like Russia will both increase it's worth and it's political power. To give just one example, at present about one quarter of Europe's gas comes from Russia. If present trends continue, by 2020, three quarters of Europe's gas will come from here in Russia.”
- 2.7 In February 2004, Russia cut off gas supplies to Belarus(J/1/19). The Belarusian President Alexander Lukashenko, at the time, angrily stated;
- “ This is an act of terrorism on the highest level.”
- This year on the 1st of January 2006, Russia cut gas supplies to the Ukraine (J/1/20).

2.8 As recently as February 2006, the EU announced the findings of an investigation into the gas and electricity sectors(ID5), which have prompted Brussels to launch a crackdown on anti-competitive behaviour. The European Commission has found that some of Europe's biggest energy firms are holding back gas supplies, stifling competition and driving up prices.

2.9 The House of Lords, Gas Review, 17th Report, 2004, recognises that gas storage projects are not necessarily providing a strategic reserve.

The report states;

“Some new storage capability is being planned for in the United Kingdom in the form of on-shore facilities, such as those planned at Aldbrough and Humbly Grove. These however are not storage in the sense of a strategic reserve but are designed for operational use in conjunction with trading.”

2.10 Interestingly, Dr. David Evans of BGS, in his Appraisal of an Underground Gas Storage Proposal at the Welton Oilfield, Lincolnshire (CD74) uses this quote and then he further goes on to state in Functions and Needs for Gas Storage Facilities;

“Commercially, where underground storage is used to hedge against seasonal and/or monthly differentials in gas prices, the profits to be made due to price fluctuations can be considerable. As a result, both the supply and demand side are using storage for more speculative purposes.”

- 2.11 The appellant acknowledged the commercially speculative aspects of their proposed project in their press release of July 2004 (AppendixJ/1/3);
- “the exceptionally high deliverability rates planned for the site also mean it could be used more commercially for trading purposes.”
- 2.12 The altruistic motives expressed by Mr. Trimble in regard to the appellant’s scheme “ of moderating gas price increase for consumers” (CGS/1/2, 8.9) strains credibility. The motivation for the proposed development, in investment terms, is quite simply “profit.”
- 2.13 There have been a number of developments since the commencement of this Inquiry in October. On the 29th of November 2005, the Prime Minister and the Secretary of State for Trade and Industry, Alan Johnson announced that they had asked Energy Minister Malcom Wicks to lead a review of UK energy policy(CD59). That revue is ongoing.
- 2.14 In the debate following the energy review announcement, our local Fylde MP, Michael Jack, drew the Government’s attention to how economic and efficient the AP1000 nuclear power station is(J/1/21). The AP1000 has a good safety record, and the small amount of fuel required would come from friendly sources such as Australia and Canada.
- 2.15 For instance, French electricity demand is sourced from 75% nuclear and 15% hydroelectric, this allows them to enjoy a security of supply, without too much dependency, on events outside their control.

- 2.16 The technology is available to build clean burn coal fired power stations and a whole range of renewable energy sources are capable of being expanded. I would like to see a balance of energy sources maintained.
- 2.17 On the 12th of January 2006, Alan Johnson, Secretary of State at the DTI, made a statement in the House of Commons(Note 2 CD73);
“ Today I can announce new measures to increase the potential for gas storage in the UK. There is the strong potential for gas storage in a number of geological formations off-shore, in areas such as The Irish Sea and the North Sea.”
- 2.18 Subsequently on 22nd of February, Stag Energy announced it's Gateway project to store gas in the Irish Sea. The offshore location will not impact on local communities, will extend the use of the many facilities in Barrow and provide new employment opportunities to those working in the off-shore oil and gas sector.
- 2.19 INEOS Enterprise, in September 2005, announced their intention to invest in a new gas storage facility at the Holford Brinefield, Cheshire. This will be a sustainable development, as the brine obtained will help to underpin the long term future of a number of strategic chemical manufacturers in the North West, including Ineos Chlor at Runcorn.
- 2.20 In comparison, the proposed Fleetwood development has very little to recommend it and a great deal against it, as I will outline in this closing statement.

3. SAFETY

- 3.1 I was very surprised when a member of the appellant's legal team challenged the veracity of a 3 mile evacuation zone being applied, in regard to the Moss Bluff incident. I would have thought that the Moss Bluff Cavern Incident Report(CD54) would be essential reading for anyone with an interest in the gas storage industry and that Canatxx, having Solution Mining Research Institute(SMRI) members on their team, would be fully aware of the circumstances.
- 3.2 Mr. Tydlesly, the appellant's safety expert, started by reassuring us that a large scale gas release does not produce an explosion but a blast wave, unless in a confined space e.g. building. The proposed compressor station may be capable of being unmanned, but the surrounding area is populated and this should be recognised. The second part of his statement, when he advised "don't stand there and get cooked" was alarming and will have added to the high level of public concern.
- 3.3 When questioned about risk, Mr. Tydesly replied "To say there is no risk is nonsense."
- 3.4 Mr. Tydlesley's statement that the extent of clothes being worn at the time, in the event of "blast", would reflect in the level of injury sustained, is not entirely accurate, some fabrics can protect, others can become welded to the skin and cause a great deal of harm. This was found to be the case in the Abbeystead disaster.

- 3.5 When discussing possible escape routes from the Heads, it had been drawn to Mr. Tydesley's attention that the Brown's Lane route might place people in greater danger. Mr. Tydesley recommended using the riverbank, (which would be a very long walk to safety, not suitable for the elderly or infirm, or for that matter anyone who had sustained injuries.)
- 3.6 I don't think anyone will ever forget the alternative safety advice which was put forward by Mr. Tydesley, for the residents of the holiday home park, which was to "SHELTER BEHIND A CARAVAN."
- 3.7 Mr. Tydesley acknowledged that risk existed in regard to the proposed development. The appellant still, apparently will not acknowledge the need for a full and comprehensive risk assessment.
- 3.8 On the 11th of December 2005 a massive explosion at Buncefield occurred. As a result the HSE have issued a safety alert(J/2/16). The huge explosion had a destructive power beyond the typical "worst case" normally used for on-site and off-site emergency planning purposes.
- 3.9 In light of the evacuations undertaken at Moss Bluff and at other gas storage related incidents, and that "worst case" has been recognised as underestimated at Buncefield, surely a thorough and rigorous risk assessment should be undertaken, in relation to this proposed massive Top Tier COMAH site.

3.10 Any incident at this proposed site, not necessarily a major one, could induce panic amongst the surrounding population, people trying to leave the area would soon bring our already congested roads to a standstill and impede or prevent access by emergency service vehicles.

3.11 The area around the proposed development is too heavily populated, for there to be any realistic expectations of an emergency evacuation plan being effective. For instance, the sheer number of vulnerable people, the elderly, the infirm or disabled, the occupants of retirement homes and nursing homes and the young, the many schools and nurseries throughout the area, would render a large scale evacuation logistically impossible.

3.12 The proposed development, by it's very nature would be recognised as a hazardous site, added to that are the elements of further potential risk.

- The proximity of possible pathways for gas migration due to the site's close relationship to existing cavities, many known to be linked.
- The presence of two levels of conventional mines nearby, for which no accurate records exist.
- The presence of wet rock head and the knowledge that wild brining operations were undertaken historically, for which no accurate records exist.

- The on-going problems of subsidence, which all though inevitable, are not predictable with any degree of accuracy, either in timescale, extent or dimensions.
- The presence of known faults in the area and the possibility of further faults being identified.
- The apparent lack of current knowledge of the status of the toxic waste repository, BW107, no survey results have been produced.

Add to that a population of 100,000, is it any wonder that people genuinely fear the consequences of locating this development on the Wyre Estuary?.

4. GEOLOGY

- 4.1 No sound geological information has been submitted, in regard to the area chosen to accommodate the storage caverns, to prove, that the halite is capable of storing natural gas safely.
- 4.2 Geophysical logs of Arm Hill 1 and Heads 1 were supplied by Canatxx and used to generate a synthetic seismograph. Dr. David Evans of BGS admitted that synthetic seismographs are not “bomb proof.”
- 4.3 I was surprised that Dr. Evans was so keen to point out in his evidence, CGS3/1, that his report was not an assessment of underground gas storage technology or the suitability of the Preesall halite for gas storage, as he had made reference to Preesall in his written evidence to the House of Lords select committee in 2004, The Case for Underground Gas Storage(J/1/14).
- 4.4 After reading Dr. Evans evidence to the House of Lords select committee (forwarded to me by Joan Humble), I entered into correspondence with him, from August 2004 onwards. In October of that year, I sent him a copy of our representations to LCC in response to the first Canatxx planning application 02/03/1455 and the first Hazardous Substance Application. These documents contained various references to loss of product incidents at salt cavern storage facilities

- 4.5 In reply to Dr. Evans statement in his evidence to the House of Lord's that "Underground gas storage is safe, secure and reliable" and that "underground gas storage facilities are located within and around cities (e.g. Paris and Berlin)". I pointed out that an explosion had occurred at the Spandau aquifer gas storage facility, Berlin. Dr. Evans has now acknowledged this incident in his Welton appraisal.
- 4.6 I had hoped to be able to be able to present to the Inquiry, as part of my evidence in relation to safety and geology, the document Dr. Evans refers to in his Welton appraisal; "Gas Storage and Single-Point-Failure Risk". I wrote to Mr. John M. Hopper, President of Falcon Gas Storage, who explained that he did not own the copyright. I was unable to get Hart Energy Publishing to lift the copyright restrictions.
- 4.7 Dr. Evans remarks in his Welton appraisal, page14:
Summary of catastrophic events involving salt cavern storage in the U.S.A since 1972.
"The majority were the result of mechanical/engineering faults (valve or casing failure) rather than failure of the salt cavern".
- 4.8 Dr. Evans does not include the incidents of numerous leakages at Conway, Kansas in his summary of incidents. Mont Belvieu, Texas is not the only place where gas leaks have caused residents to be permanently re-located. At Conway, in 1981, residents were re-located and their homes removed.

4.9 Conway is well documented in a Solution Mining Research Institute paper “Fugitive NGL at the Williams Midstream Natural Gas Liquids Conway Underground Storage Facility – Geological and Hydrogeologic Studies, Cavern Testing and NGL Recovery Plans” presented at the Spring 2002 meeting of SMRI. The co-author being Dr. Joe L. Ratigan, whose Hutchinson Report is included in Inquiry Core Document 1 and was also the author of the Core Logging Report included in Supplementary Environmental Information (CD7).

4.10 I have not presented the SMRI Conway document to the Inquiry due to copyright difficulties but I would assume that the appellant could produce a copy, having SMRI membership.

4.11 Dr. Evans, in his memorandum to the House of Lords committee, commented that;

“there is no obvious upside to living above or near, an underground gas storage facility, but neither is there a significant downside.”

Dr. Evans has now revised that view and admitted to this Inquiry that there was a downside to living near an underground gas storage facility.

4.12 Dr. Evans in his appraisal of Welton (CD74), remarks;

“From the reported incidents salt cavern storage appears to be the environment in which most gas escapes/leaks occur”.

4.13 Dr. Evans in his conclusions in the Welton report says;

“Production of oil and gas, or the process of gas storage, however is not without risk. There have been incidents of leaks and explosions at underground gas storage facilities, from which lessons have been and are being learned. These incidents have, in the majority of cases, been at underground storage facilities of a different nature. Most have been salt cavity storage sites and due mainly to poor maintenance of infrastructure, poor well completions with casing or cement failure, or as a result of not having adequately researched the area for likely perforations (e.g. old wells), of the salt cavern, reservoir or cap rock succession.

4.14 The information from the last ICI borehole at the Heads, BW135, indicates that the salt is not as thick or deep as Canatxx predict, similarly, B6, to the west of Armhill 1, also confirms this.

Dr. Evans (CGS/3/6) comments;

“the reduced thickness of halite in this vicinity may be explained by faulting”.

4.15 The appellant is still refusing to acknowledge the existence of BW135, despite photographs being produced which clearly indicate it's position. Boring records and letters have been produced, but because they do not confirm the appellant's assumptions, this evidence is being disregarded by Canatxx.

- 4.16 The fact that the different proposed caverns would require different operating pressures indicates the marginality, of the remaining undeveloped Preesall halite, in regards to it's suitability, for this form of development.
- 4.17 Canatxx have produced no borehole data within the area of the proposed cavern development, to establish the depth, thickness or characteristics of the halite.
- 4.18 Professor Rokahr told us an inadequate number of test samples had been used from the core samples of Arm Hill1 borehole. Also no information has been obtained or given in regard to the overburden.
- 4.19 We were also told that further information would be required from a series of test bores, within the cavern development area and a seismic line, north to south, would have furthered knowledge of the geology of the area.
- 4.20 Information has been submitted (J/1/8) that a void was encountered during the boring of BW130, zero resistance was encountered at a depth of between 294 metres and 299 metres. BW130, although adjacent to the proposed development area, has not been the subject of a sonar survey.
- 4.21 The adjacent BW129 inexplicably lost it's compressed air blanket during development and a chimney was formed above the cavity, brine production was ceased from this well.

- 4.22 The next planned wells in the succession to the north of the Heads, BW131 and BW132 (J/1/13) were not drilled by ICI, operations moved to the south of the Heads, BW133 and BW134 being the next wells in the development sequence.
- 4.23 BW112 to the north east of the Heads and also adjacent to the proposed development area if known to be linked to BW126.
- 4.24 No clear information has been produced, which rules out the possible presence of faults or wet rockhead, in the proposed development area. Professor Rokahr made it clear that he would not locate a cavern in an area of faulting or wet rockhead.
- 4.25 There is also no guarantee that Professor Rokahr would design the caverns, or even that Canatxx would retain ownership of the site, should planning consent be granted.
- 4.26 Historically cavern development programmes have not always been adhered to, for instance the ICI cavern development programme, which specified a distance of 100ft between caverns, was not followed. Mr.Heitmann confirmed that the recent sonar survey showed that the distance between certain existing caverns was less than 10 metres.
- 4.27 There are so many unknown elements and unanswered questions in regard to existing brinefield development and the proposed storage area geology, that the only conclusion can be, that the halite has not been proven capable of storing natural gas safely.

5. DE-COMMISSIONING

- 5.1 We have been told that the salt experts have not yet solved the issue of how to de-commission caverns. The Heitmann method is continuous and indefinite monitoring. In the case of remedial action being required, this would prove very costly. Should we burden future generations with this safety issue?.
- 5.2 A bond has requested prior to de-commissioning, as a condition, Canatxx felt that it was unfair that this should be required, if the bond is only required for a five year period, who will be responsible after the five year term runs out?.
- 5.3 As we have been told, that salt experts have not yet solved the issue of how to de-commission caverns, this leaves a big question mark over what are the long term implications in regard to flood defences and the environmentally sensitive SSSI's.
- 5.4 If as Cantxx state, there is no possibility of long-term subsidence damaging the SSSI's, or, putting human life and property at risk, by damaging the flood defences and it's about time this was given serious consideration, by the developer and English Nature, why have compensatory measures in regard to possible subsidence , been considered necessary. Surely this is admitting there is the possibility of ongoing subsidence.

- 5.5 The caverns will be created under the estuary and on a flood plain, throughout their active life they will be subjected to the frequent stresses of pressure differentials, as they are filled and emptied.
- 5.6 The appellant states that they intend filling the cavities with saturated brine on de-commissioning. Filling the voids created by the removal of 49.5 million tonnes of salt will require a considerable quantity of saturated brine. The appellant has ruled out fetching brine in from an outside source by road. I agree this would be totally impractical.
- 5.7 The appellant, in their brine use study, have already ruled out a pipeline, to convey brine produced in the solution mining process, to Cheshire, rather than pollute the Irish Sea, as too costly. Therefore bringing brine in by pipeline during de-commissioning must also be ruled out, for similar reasons.
- 5.8 The only way left of obtaining saturated brine would be to solution mine further wells. As the appellant will already have exploited any remaining Preesall halite and wasted it, obtaining further saturated brine may prove difficult. Sea water alone cannot be used as it would dissolve more salt and continue to develop the cavities.

6. BRINE USE STUDY

- 6.1 I don't think the terminology brine "use" study can accurately be applied to the appellant's study. The original preferred option was to dispose of the cavern washings directly to the Wyre Estuary on the ebb tide(J/1/23). Canatxx have always regarded the salt as a waste product. I don't believe there was any real will to find a commercial use for this finite resource.
- 6.2 If there was real intent to find a commercial use for the brine, the possibility of using clean, fresh water for cavern washing would have been explored, rather than using contaminated sea water from the fish dock.
- 6.3 The premise put forward that Canatxx was not wasting a natural resource but simply re-locating it to the Irish Sea, was just plain silly.
- 6.4 A new, large feature has recently been introduced at the proposed booster pump station, a filtration unit(A.BWP/WKS.0603200 Rev 2, 09.03.06). The diagram shows brine entering and exiting this structure but there are no details of how, or to where, the residues will be removed, just vague references to disposal down existing wells.
- 6.5 The existing brinewells nearest to the booster pump station have not been surveyed for suitability for this purpose, some have marl roofs and once again, the presence of wet rock head or faults has not been investigated.

- 6.6 If the residues, which I would assume would be in the form of a wet sludge, were not fully salt saturated, they could not be placed down fully worked cavities as further cavern development would occur.
- 6.7 When I.C.I. developed a new well, it was worked in conjunction with a more mature brinewell to ensure that the weak brine became fully saturated and the marls were allowed to settle in a larger cavity, thus reducing the marl content of the brine.
- 6.8 No details have been given, of by what means the contaminated residues are to be conveyed to existing brinewells. No waste disposal licence has been sought, or any consideration given as to whether this means of disposal would be acceptable, when the new EU Directive on the Management of Waste from Extractive Industries comes into force.
- 6.9 The Environment Agency have been having confidential meetings with the developer for nine years. In the minutes of the meeting of 13th June 2001(J/1/23), concerns raised were the effects on local (fish) nursery areas, migrating salmon and trout and the lethal effects of the discharge on a diverse benthic population.
- 6.10 The EA were quite rightly expressing concern in regard to the possible ecological impacts of the discharge. We have heard Dr. Broughton's evidence which also expresses concerns in regard to the impact of the brine discharge on migrating fish, in particular Atlantic salmon, which are recognised by the EU, as an endangered species.

- 6.11 During recent environmental investigations in connection with off-shore wind farm development, surveys found that Liverpool Bay was found to support two species of birds, common scoter and red-throated divers, in numbers sufficient, to qualify the area for Special Protection Area (SPA) status.
- 6.12 Despite 9 years of discussions with the EA, according to an EA Canatxx briefing note, dated 17.03.06(J/1/24), Canatxx have still not put forward an agreed brine discharge monitoring programme and the EA have delayed the Discharge Consent decision until 16.05.06.
- 6.13 The same briefing note informs us that English Nature have signed off the Agency's assessment against the Habitat's Directive and agree with the conclusion of no adverse effect.
- 6.14 English Nature have declined to be present at this Inquiry, they have not presented evidence, or been available to respond to questioning and being absent, have not listened to any of the evidence presented by others.

7. NOISE

- 7.1 The east side of the estuary is a rural area, no real attempt to assess the impact of noise on the holiday home parks or those people who use the area as a recreational amenity has been undertaken.
- 7.2 Mr. Williams agreed that the noise produced by drilling could become irritating. He also agreed that during lifting of pipes, sudden unexpected resonating clangs can be heard.
- 7.3 Surprisingly, Mr. Williams did not seem to be certain what noise levels a drilling rig would produce, or as to whether the assumed noise levels were prior to, or after the introduction of noise mitigation measures, that being the case, how could he have claimed to have assessed the impact?.
- 7.4 I have lived and worked in close proximity to the drilling and development of solution mined wells, it was not a pleasant experience and one which I would not wish to repeat.
- 7.5 A whole range of conditions will quite rightly be put in place, should development proceed. Past experience has shown that in brinefield development, where the poacher/gamekeeper situation arises i.e. the developer is also the landowner, regard for the planning conditions, associated with the development, can be lax.

8. TRAFFIC

- 8.1 The appellant has failed to give any consideration to the traffic impact on the A585. There was no appreciation shown of the congestion problems on the A585.
- 8.2 The A585 is the major artery which links the port of Fleetwood with the M55 and the rest of the motorway network. The continued existence of the Stenna Line, Fleetwood to Larne service, is totally dependent on the capacity of the A585 to accommodate the associated traffic. The implications for the port of Fleetwood would be grave if the service was transferred to Heysham or elsewhere.
- 8.3 Fleetwood Docks and north east Thornton are strategic locations for development and are a part of a designated Regeneration Priority Area, meeting regeneration targets is also dependent on road infrastructure capacity. Fleetwood is also attracting much needed retail development, Freeport for example and new major retail outlets such as ASDA, all dependant on the road network for supply. The planned recycling plant, although a desirable development in improving the way we manage waste, will contribute further traffic.
- 8.4 The A585 is already at peak capacity, major congestion and traffic delays are common, major tailbacks are frequent, in particular between Windy Harbour traffic lights and Norcross roundabout. Problems experienced are poor journey time predictability and reliability, congestion during periods of high HGV usage and delay in response times of emergency service vehicles, due to the traffic volume.

- 8.5 There was no appreciation shown of the accident problems on the A588, which is clearly apparent, from the “there have been fatalities on this stretch of road” warning signs and readily available accident statistics, and press and media coverage.
- 8.6 There was no consideration of the advisability of routing all the construction traffic past Stalmine Primary School, or any consideration given to the fact that Stalmine is split by the A588, there are residential areas on both sides of the road, the post office, shop, hairdressers, school, reading rooms, bowling clubs and Wyre Villa complex on the west side, the church, public house and three residential static home sites, a farm shop and a busy garden centre on the east side.
- 8.7 Hambleton also has residential areas, shops and services on both sides of this road, and is more highly populated than Stalmine. In both villages there are frequent and numerous trips across the road.
- 8.8 The appellant has not assessed the impact of development traffic on the local Over Wyre road network. Surveys were timed so that they did not take into account, traffic movements generated by the holiday home parks.
- 8.9 No account was taken of the heavy usage at times by farm traffic, of the rural road network. We were informed that any conflict issues between movement of cattle and construction traffic had been resolved, with the relevant local dairy farmers, this was not the case , no discussions had taken place.

- 8.10 Mr Mason did admit that the rural roads which he referred to as “lightly trafficked”, could at peak agricultural usage times, be categorised as “heavily trafficked.”
- 8.11 Construction traffic had been routed down a bridle path, in the traffic plan, no consideration had been given to the fact that the bridle path is bordered by well established hedges, on both sides and is too narrow to accommodate both construction traffic and equestrians safely.
- 8.12 No consideration was given to the use of the local rural roads as a leisure amenity, by walkers, cyclists and horse riders or to the fact that the development will have a significant impact on footpaths FP38, FP61, FP42, FP41, FP45 and bridle path BW2a.
- 8.13 The proposals put forward by the appellant for a mini roundabout or mini by-pass are outside the development area shown on the appellant’s plans. No planning permission has been sought, there has been no public consultation and neither proposal meets acceptable design standards.
- 8.14 Mini roundabouts should only be used when all approaches are subject to a 30 mph speed limit or less and traffic on a main road should be able to see a side road for a distance corresponding with safe stopping distance.

- 8.15 In case of the mini- roundabout, there is no space available to put on place the necessary traffic deflection, de-prioritising the junction would increase the risk of accidents. The appellant's traffic consultant's claim that no double decked buses use this route is false, children attending St. Aidans Technology College are conveyed by this means of transport.
- 8.16 The proposed mini by-pass would be privately controlled by the appellant, no details have been put forward as to what measures will be put in place, to ensure traffic wishing to, gain access to the private road does not block back onto the highway, there will also be construction traffic and pipe delivery traffic entering and leaving Moss House lane on the opposite side of the A588, in conjunction with the pipelines to the NTS development, which is subject to a separate planning application.
- 8.17 Planning permission has been granted for the pipelines development, subject to conditions, despite the fact that no traffic impact survey information had been provided in the Environmental Statement. Some traffic information has recently been supplied in relation to the pipelines development, this information has not been publicly advertised or site notices displayed.

- 8.18 How often have we seen the appellant change their plans throughout the course of the Inquiry?. Each series of maps have contained errors or omissions. The most recent SK/FP/30/11/05 Rev C, showing the proposed re-alignment of the haul road, depicts BW50, which is fenced off as liable to subside as BW44. There are in fact two BW44's on this map. Other brinewells in the area have been omitted, BW45, BW47, BW78, BW98 and BW102.
- 8.19 The maps provided are not accurate or up to date. Areas of subsidence are much larger than portrayed, for instance a section of Aggleby's Road subsided several years ago.
- 8.20 The proposed haul road to serve the north of the site, although recently shown as diverted, still passes over an area of land recognised as potentially unstable. The north - south service track also passes over land known to be potentially unstable. There will be conflict with existing traffic at both junctions of these service roads with existing lanes.
- 8.21 Construction traffic will need to cross the Wyre Way in two separate places, on Burrows Lane and to the north of the Heads, Brown's Lane once again no consideration has been given to conflict of interest.
- 8.22 Local lanes such as Highgate Lane, Staynall Lane and Grange Lane, which are single track and have no designated passing places, will become "rat runs" for construction personnel.
- 8.23 All these potential problems highlight, how inappropriate it is, to attempt to site a massive industrial development in a rural area.

9. ENVIRONMENTAL AND LANDSCAPE IMPACT

- 9.1 The Wyre Borough Tourist Guide 2004 invites us to “Imagine Beautiful Wyre”.
- 9.2 Those of us who live, work in and visit the area appreciate what a special environment it is. Dr. Lowther’s blinkered vision of the area, after five visits, is reflected in his description of the area as “tedious and boring.”
- 9.3 Thousands would agree to differ. We appreciate the east bank of the estuary, for it’s rural tranquillity and it’s landscape variety, from the internationally designated marshes, to the patchwork of farmland and rural lanes, the woodland and coastal footpaths and typical English villages and hamlets.
- 9.4 The Hyder survey teams also chose to ignore or mis-interpret, the natural environment of the Wyre Estuary. There are limitations to the quality of survey that can be produced, whilst sitting in a car reading, sunbathing in a field, behind a hedge, or whilst engaged in animated conversation with your friend, or for that matter waiting around a corner for the farmer’s wife or holiday home site owner, to leave, so you can do a bit of trespassing.
- 9.5 We don’t have a “neighbourhood watch” scheme in our area, but if we did, the 14 or so residents, would win awards for their vigilance and spirit of co-operation.

- 9.6 No great crested newt survey took place in 2005 at the Height O,th Hill, Dr. Lowther admitted that he could not produce any documentation to confirm that access had been permitted, he agreed that it was normal procedure to contact the farmer, explain the purpose of the survey, frequency and timing of visits and agreed access routes.
- 9.7 Dr.Lowther's statement that (CGS 12/2 3.17) "following the resolution of access difficulties in spring 2005, these ponds were subsequently surveyed, and great crested newts found to be absent from all of them." is inaccurate.
- 9.8 A few obvious mistakes made by the survey team;
- Walkers and their dogs, even in Wyre, are not capable of walking on water and disturbing birds on the high tide roost at Arm Hill during tidal inundation.
 - Mis-identifying broad leaved woodland, containing as many as fifteen different deciduous species, as conifers.
 - Mis-identifying arable fields as improved grassland.
 - Mis- identifying fishing lakes, which support numerous freshwater species as "brine filled depressions."
 - Failing to recognise that thousands of over wintering geese regularly occupy fields at the south end of the site.

I won't continue the list of errors at the risk of becoming "tedious and boring."

9.9 Consultation has not taken place between the appellant and local people in regard to their habitat enhancement measures and the question of conflict between dairy cattle movement and construction traffic has not been resolved, as stated. This raises the question of how many more of the appellant's statements are misleading?.

9.10 In the Ramsar Advisory Missions Report, Dee Estuary, United Kingdom (1994)(J/1/25), the monitoring team make the following observation about environmental assessment;

83. "Whilst Environmental Assessment (EA) is mandatory or advised for certain development proposals, the Monitoring Procedure team believes that it would be beneficial for a greater degree of independence to be brought to EA procedures, which are presently implemented on the basis of an environmental statement provided and paid for by the prospective developer. Whilst this arrangement is consistent with "the polluter pays" principle, the independence of an environmental statement prepared by (or under contract to) the developer is clearly questionable."

9.11 The Monitoring team also comment that;

88. "There also appears to be a worrying trend in recent development proposals towards treating the concept of mitigation as something that can be "bolted on" to make almost any proposal acceptable."

- 9.12 The Canatxx environmental enhancement proposals, which were offered to induce English Nature, to withdraw their objection to the proposed gas storage plans, are not deliverable.
- 9.13 The tenant farmers are not Canatxx farm managers, they have the right to the quiet enjoyment of the land held in the tenancy, without interference from the landlord.
- 9.14 The “enhancement” measures seem to be very much a “pick and mix” affair and have certainly not been designed to complement the ecological environment that already exists.
- 9.15 Little logical thought or practical reasoning has gone into the suggested measures. For instance a proposal has been put forward for the creation of four new ponds in compartments 11,12,13 and 14, designed specifically for great crested newts,(8.2.3).
- 9.16 It is stated that great crested newts require an area of “good” terrestrial habitat surrounding a pond to a radius of at least 250 metres. The appellant has failed to realise that this 250 metres would extend into land which is not under the control of Canatxx. It is also remarked that hedgerows are important for great crested newts, as they provide conduits for newt movement. There are no hedgerows in this area, that’s why it is attractive to over-wintering geese.

- 9.17 The Environment Agency are aware, that the potential for managed re-alignment, in the area between Burrows Marsh and Hackinsall Sewage Works, is poor, due to the presence of brinewells. It is clear from the Environment Agency Managed Re-alignment Study, Figures 6.1 and 6.7(J/2/17), that the area to the south of the Heads is not a potential inter-tidal area.
- 9.18 If as Canatxx state there will be no long-term problems, and if we are to believe this, why, is there a need for compensatory measures for any environmental damage to the SSSI's, caused by subsidence?.
- 9.19 Dr. Lowther stated that an Environmental Impact Assessment of the proposed pipeline to the national transmission service (NTS) was carried out and no significant effects were predicted.
- 9.20 Dr. Lowther admitted that 40% of the pipeline development area had not been surveyed.
- 9.21 Dr. Lowther admitted that in the 40% area hedgerows and ditches have not been surveyed. No surveys for badgers, water voles, great crested newts, bats, breeding birds, barn owls or purple ramping fumitory have been carried out, all species known to be present in the area.
- 9.22 Dr. Lowther also admitted that no archaeological assessment of the pipelines route was carried out , despite the known potential of the area to contain archaeological assets of national significance and that no traffic impact assessment had been submitted.

10. LANDSCAPE

- 10.1 Landscape expert, Mr. Kitch, stated “that the indicated impact of the scheme on landscape character and on local views would not be significant.” As he was unclear about the dimensions of the buildings and unaware of the many components of the related infrastructure, the only conclusion can be, that his assessment is fundamentally flawed.
- 10.2 It is evident that the proposed compressor station will be visible above the ridgeline (compressor station height 29.488 metres, Burrows Hill 23 metres (CD75h(r)) and that any attempt to screen the easterly aspect would be pointless, as the plantings will be further down the slope, taking into consideration also the need for security fencing and an area of “no mans land” between the fencing and the plantings.
- 10.3 The phrase “screening with native trees” is frequently used. The only native trees to the area are Ash and Sycamore and Willow where it’s damp. Where woodland has been planted in the area, it is not unusual for 20% to require re-planting and those that do survive are slow to establish.
- 10.4 Mr.Kitch’s statement “that new woodland blocks are considered to be beneficial features within the landscape character” is misguided, The landscape of the Wyre Estuary and adjoining areas of farmland is appreciated for it’s open character. The value of the Lancashire countryside is in it’s wide diversity of landscape types, from the foothills of the Pennines to the coastal plain and river estuaries and marshes.

- 10.5 Altering the character of the landscape would not be beneficial to those species that rely on the area for their natural habitat, planting trees in an attempt to hide the ugly development would not be successful and would be detrimental to both indigenous and migratory wildlife.
- 10.6 The Wyre Estuary is particularly important as part of a network of estuarine habitats, the loss of one part can destroy the integrity of the network.
- 10.7 The Wyre Estuary is important because of its geographical position, along with other North West estuaries, it is a vital migration staging area for waterfowl. These birds need to build up their nutrient reserves in preparation for long distance migration and survival in their breeding areas.
- 10.8 Within the estuary feeding is limited by the period of tidal exposure. During high tide periods birds move to feed on the surrounding farmland. It is not just the estuary itself which is critical to the feeding habits of these migratory birds but the landward areas are also vital to their survival.
- 10.9 Not only do waterfowl and migratory geese rely on the estuarine hinterland for survival, but so do numerous other species of birds, of particular note is the skylark, which is listed on the Birds of Conservation Concern Red List.

- 10.10 The Wyre Estuary has already suffered damage on the west bank due to industrial development and recently, increased recreational usage, for instance, at the Wyre Estuary Country Park, brings with it its own impact.
- 10.11 On the east bank, further unnecessary exploitation of the Preesall halite and the establishment of the accompanying industrial development, peripheral to the estuary, can only be considered as harmful to this unique estuarine system. It's time to draw the line on further development and preserve the remaining rural areas surrounding the Wyre Estuary.
- 10.12 Canatxx seek to create a very unpleasant environment. The whole area from Staynall to Knott End Golf Course, will be turned into a massive construction site. Vegetation will be stripped from the site during the winter months, prior to development, creating a wasteland of churned up mud. Great scars will appear across our countryside, as pipelines and services are laid and roads and standings constructed. Construction compounds, storage areas and porta-cabins will mushroom all over the site.
- 10.13 Alien features will be introduced into the rural landscape, parking areas, security cameras, lighting and fencing, large scale industrial buildings, which are of such immense dimensions, that any possibility of screening with native trees, must surely lack credibility.

10.14 Wildlife corridors will be truncated, internationally important feeding areas for migratory birds will be decimated, vital habitat for ground nesting birds will be destroyed. We will lose that sensitive ecological balance, that is so vital to maintain our rich diversity of species.

10.15 At the beginning of the end of the lifespan of the proposed facility the massive disruption to the area, will start again, as the whole process is put into reverse during de-commissioning.

11. HUMAN RIGHTS

11.1 Dr. Malcom Hockaday's remarks in regard to Human Rights, implications, sum up Canatxx's attitude to the human and natural environment. He states;

“ Whilst Article 1 grants a right to the peaceful enjoyment of one's possessions, it does not guarantee the right to enjoy them within a pleasant environment.”

11.2 I believe the people of the Wyre Estuary deserve better than that.

I believe that they have the right to live without the considerable anxiety and distress, that this development would bring and without the risk of the potential consequences of any accident occurring.

12.1 In conclusion, after listening to all the evidence put forward before this Inquiry and having given that evidence careful consideration, it is my firm opinion that Canatxx Gas Storage Ltd. and their consultants have failed to supply adequate information, to establish that, the area is suitable or capable of safely accommodating a development of this nature.

12.2 Please recommend to the Minister of State, that the appeals by Canatxx Gas Storage Ltd., against non-determination of planning Application 02/04/1415 and the accompanying Hazardous Substance Consent application, be rejected.

