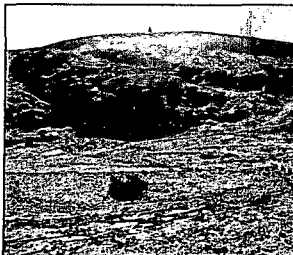
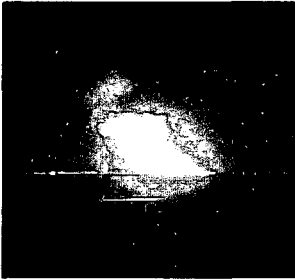
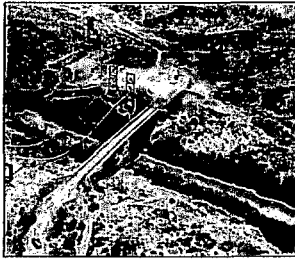


20th May 2004

THE BRIAN COYLE APPEAL



TO THE DECISION MADE BY MAYO COUNTY COUNCIL FOR
THE DEVELOPMENT OF A PROPOSED GAS TERMINAL AT
BELLANABOY BRIDGE AND A PEAT DEPOSITION SITE AT
SRAHMORE CO. MAYO

BASED ON ITS WORLD RECORDS

Should we allow the Corrib Gas Field to
be Connected:

- ☐ To an Inland Terminal

And

- ☐ Becomes the only Inland Terminal In the WORLD? OF ITS KIND
- ☐ Surrounded in BLANKET BOG that can become unstable at an angle of 2degrees or more
- ☐ Connected from a Landfall at the Base of a Hill that is Unstable
- ☐ Residents as close as 60m to the High Pressure Untreated Pipeline
- ☐ Residents within the Explosion/Gas Vapour Exclusion Zone from the Terminal and High Pressure Pipeline
- ☐ Streams and Rivers within an exclusion zone feeding into a major drinking water supply
- ☐ The only World Wide Deposition of 450,000m3 of Acidic Blanket Bog
- ☐ Causing in excess of 100,000 CONSTRUCTION traffic turning movements during its development
- ☐ Resulting in the removal and discharge of at least 400,000,000 litres (Four hundred million) litres of acidic base water to the North and South of Carrowmore Lake, the only drinking water supply for the entire region
- ☐ In an Area of Natural Ground Instability

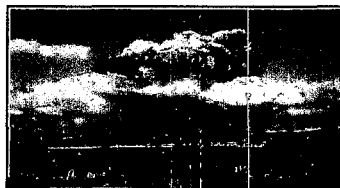
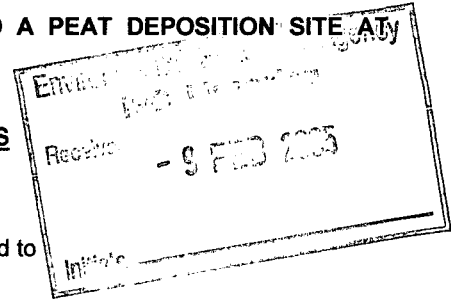
Why should we?

- when all the other World Wide Authorities have done different

Is it the lack of experience in our Representatives and Authorities that they do not know the difference between right and wrong?

We do not want an Erms EU Directive to be written similar to the Seveso II directive that was written following the disaster and the ultimate consequence to people in the small town called Seveso in Italy.

The Content of this report is written without prejudice and is for information purposes only



By Brian Coyle,
BE, CEng, MIEI, MStructE

Chartered Consulting
Civil & Structural Engineer
Director of COYLE KENNEDY LTD
Consulting Engineers

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Appeal

Introduction

This appeal against Mayo County Councils decision to grant permission to

CONSTRUCT GAS TERMINAL FOR THE RECEPTION AND SERAPATION OF GAS FROM THE CORRIB GAS FIELD, AND FOR A PEAT DEPOSITION SITE, RESPECTIVELY. THE DEVELOPMENT WILL CONSIST OF THE CONCURRENT DEVELOPMENT OF TWO SITES LOCATED 11 KILOMETRES APART, APPROXIMATELY, AND IDENTIFIED AS THE SITE OF THE GAS TERMINAL FOR THE RECEPTION AND SEPARATION OF GAS FROM THE CORRIB GAS FIELD IN THE TOWNLAND OF BELLAGELLY SOUTH AND THE SITE OF THE PEAT DEPOSITION SITE IN THE TOWNLANDS OF SRAHMORE AND ATTAVALLY, BANGOR ERRIS. THE DEVELOPMENT AT THE BELLAGELLY SOUTH SITE WILL CONSIST OF: A GAS TERMINAL FOR THE RECEPTION AND SEPARATION OF GAS INCLUDING PLANT AND EQUIPMENT; PROVISION OF 4,935 SQ M (GROSS FLOOR AREA), APPROXIMATELY, OF BUILDINGS; ACCESS ROADS; 40 NO. CAR PARKING SPACES; AND ANCILLARY DEVELOPMENTS, OF WHICH 13 HA, APPROX, WILL BE DEVELOPED INRESPECT OF THE GAS TERMINAL'S FOOTPRINT. THE PROPOSED DEV. WILL OF THE BELLAGELLY SOUTH SITE WILL ALSO CONSIST OF: THE EXCAVATION AND REMOVAL OF 450,000 CUBIC M

is compiled and written by Brian Coyle BE, CEng, MIEI, MISTructE Chartered Consulting Engineer and director of Coyle Kennedy Ltd (Consulting Engineers).

I am a practicing consulting engineer in Galway and involved in civil and structural engineering projects throughout the country. I am a native of the North Mayo area where most of my family and friends live. I welcome infrastructure development and acknowledge our National and Local policies.

Reasons for my Observations, Objections and This Appeal

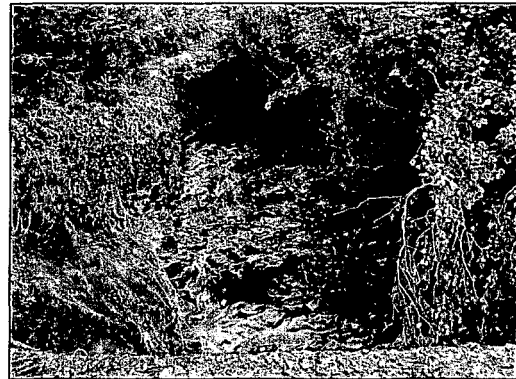
During the previous applications submitted, I assumed (and took verbal advice from people that really did not know the full facts) that the proposed development at Bellanaboy was no different than any other gas terminal development built throughout the world. I did not examine or submit an observation/objection to any of the applicants' previous submissions because previously I was not familiar with the applicants' proposals.

I initially became concerned when I heard that the applicant was re-applying on the same site for a gas terminal following the devastating landslides of September 2003. How could the applicants design team, local authorities and government officials be encouraging such a development following these natural events?



Part of Dooncartoon Hill Landslide (East Face) September 2003. The force of the failure ripped through woodland, local cemetery walls, bridges, headstones etc. and covered its path with blankets of bog and mineral soil. It completely blocked the main public road.

I became more concerned to hear that two of the three routes proposed for the high-pressure pipeline from the gas well to the terminal were up and along the Dooncartoon hill. This was an indication of the lack of research and investigation into the proposals put forward by the applicant and their design team for this gas terminal development. Based on the natural occurring landslide events of 1983 and 2003 these alternative routes should have never been proposed. This triggered my interest in the recent proposed gas terminal development and its related consequences.



The force of the landslide ripped through existing streams and formed large dikes. The applicant was identifying two possible high-pressure pipeline routes along and up the Dooncartoon Hill. This creator was formed from a small stream. One of the alternative pipeline routes would have been through this stream. Undoubtedly the force of the flow and dislodged boulders, etc would have resulted in pipeline failure.



Part of the Dooncarton Hill Landslide (North Face)

The proposed current location for this high-pressure pipeline is another overwhelming mistake and is an indication of organisational shortcomings into investigating alternative more realistic proposals. Shortcomings are still apparent in the recent application and technical submissions and will be highlighted later. The proposed development and pipeline route has the potential to create a major accident as the proposed gas terminal and its installations are surrounded in blanket bog that can fail at slopes of 2-degrees and above as stated by the applicant.

Local residents have continued to highlight this possibility and further possible occurrences. It is now obvious, that the 'domino effect' of a potential major accident was prevented by the persistence of a small group of local residents. The current proposal put forward by the applicant is another overwhelming mistake and is the recipe for a major accident.

The preamble of the Seveso II directive states:

Whereas analysis of the major accidents reported in the Community indicates that the majority of them are the result of managerial and/or organisational shortcomings;

Following my close examination of the applicants proposals, coupled with research into major accident events, changing regulations and directives it is now apparent to me that this is the wrong site for this proposed development. I welcome this development on an alternative site that limits the consequences of a major accident domino effect. This site contains all the characteristics of a 'major accident 'domino effect'. The Bellanaboy site characteristics and its surroundings (Blanket Bog, Streams, Rivers, Bog Heather, Forestry, Carrowmore Lake, natural ground instability etc.) concerns me as they can all lead to a major accident domino effect during the operational phase or in the event of a fire

/explosion either at the terminal or along the pipeline.

The persistence of the applicant, local authorities and government officials and the lack of research and thorough investigation into alternative sites are very evident. How many more events are necessary/required to occur and possible lives lost before the applicant, local authority and government officials realise that this is the wrong site for a gas terminal development. It doesn't take an expert to arrive at this conclusion. We do not want to be implementing the regulations for the Erris EU Directive on major accidents similar to those implemented for the Seveso disaster in 1976.

WE ARE RELYING TOO MUCH ON THE ADVICE FROM AN INDUSTRY THAT WE SHOULD BE ADEQUATELY REGULATING.

Confirmation of Receipt of my Observations and Objection Documents by Mayo County Council

Appendix 1 of this report contains Mayo County Councils (MCC) confirmation of receipt of my observation and objection reports, including receipt of payment.

Copy of my Observation and Objection Reports

A copy of my submitted reports is included in Appendix 2 and Appendix 3. Appendix 2 contains my first report based on the applicants' planning application and it is titled 'The Brian Coyle Observation & Objection Report'

Appendix 3 contains my other report titled 'The Brian Coyle Observation & Objection Report To The Further Information Response' following examination of the applicants' response to MCC further information request.

Request for an Oral Hearing

Based on recent events;

- Gas explosions-reports of some events are included in this document.
- Dooncarton Hill Landslide
- The exploration and treatment of gas containing Hydrogen Sulphide in the Irish Sea that is fatal at very low concentrations,
- Terrorists Attack – The infrastructure is already in place to transport the Corrib Gas to Russia and South Africa, thus making it a potential terrorist target

I therefore request an oral hearing, as these items have not been adequately addressed.

Reasons for Refusal

Summary of Observation and Objection Report

Copy of Report- Included in Appendix 2

I Object to the Proposed Site for the Gas Terminal Industrial Process at Bellagelly South, located to the North of the Catchment area of Carrowmore Lake, and the Peat Deposition Site at Srahmore on the following basis.

- Health and Safety Risks that this development impacts to local residents. Engineering assessment on slope stability must adequately examine slope stability prior to, during and after an explosion and also take account of Natural and livelihood events that are outside the applicant's control. The applicant has identified these events as one of the reasons for peat/land slides on slopes as low as 2 degrees but has not provided an engineering assessment, or a method of control for such events.
- Health and Safety Risks that this development impacts to Carrowmore Lake and hence the Erris community during construction, following construction or after a major accident. The applicant fails to identify how they can limit the consequences of events identified by them and in the Seveso II directive. The applicant has no control on the land use or the surface water runoff to streams and rivers that feed into Carrowmore Lake. These streams and rivers are outside the control of the applicant and can become contaminated with toxic chemicals.
- I object to the risk that the terminal imposes on the stability of the surrounding landscape including Dooncartoon Hill. The risks associated with the Gas Industry process i.e. explosions etc. will cause ground vibrations and hence ground instability. Remember that the applicant has identified in their submission that peat can become unstable at an angle of 2degrees or above.
- I object that economic analysis based purely on the Corrib gas quantity has formed the immediate basis of their decision for building an inland/onshore gas terminal. Gas/oil Hydrocarbons have been found and exploited in the Celtic Sea, the Porcupine Trough and in the Corrib Basin. These areas are

mainly located off the west coast of Mayo, Galway, Clare and Kerry.

- I object to the excavation and the deposition of 450,000m³ of Acidic Peat to the South of Carrowmore Lake (the only drinking water supply for the entire Erris People).
- I object to the increase in traffic turning movements associated with this proposed development and the impact that this has on local residents, emergency vehicles etc.
- The previous application identified approximately 7,600 traffic-turning movements. The current application will introduce A MINIMUM OF 82,000 TRAFFIC TURNING MOVEMENTS just to remove the Acidic Peat. The overall traffic turning movements associated with the proposed development will exceed 100,000 movements i.e. a truck will enter or leave the site at least 100,000 times during construction.

At least 90% of peat is water. There is 1000L of water in a meter cube (m³). I object to the removal of such a large volume of acidic water contained in the Blanket Peat. This blanket peat is going to be disturbed/removed and disposed in an area to the North and South of Carrowmore Lake respectively.

The amount of acidic water contained in the blanket bog is AT LEAST 405,000,000 LITRES (FOUR HUNDRED AND FIVE MILLION LITRES OF ACIDIC WATER).

- I object to the traffic hazard imposed on local roads arising from the construction of the terminal, the removal of 450,000m³ of peat and 50,000m³ of mineral soil. The c.11km route chosen to dispose this material is inadequate in formation, width and alignment. This road will be destroyed and congested with trucks during construction and will impose a high risk to those people travelling to Castlebar General Hospital in the event of an emergency. This route is the shortest route available to Castlebar/Mayo General Hospital for all residents in the North Erris area. Therefore, people's lives are at risk even during construction stage.
- I object to the location of the Gas Pipeline, Discharge Pipeline and Umbilical Line as identified under the

Foreshore Licence. I also object to the Link between this infrastructure and the Gas Terminal on foot of the recent landslide of Dooncartoon Hill. The pipeline is also been laid on Blanket Bog which the Applicant has identified can slide at an angle of 2degrees or more. How do they intend to control Natural or Local livelihood events that have been identified (by the applicant) as one of the main reasons for peat/land slides? These landslides will undoubtedly fracture, shear the pipeline and can impact on the terminal and cause a catastrophic disaster in an area currently stamped with natural ground instability. In light of this new information the Minister for the Marine has power under the Foreshore Act to withdraw the Foreshore licence on the basis of non-observance by the licensee of all these events at the time the licence was issued.

- I object to the fact that insufficient Health and Safety assessment has not been provided for all the possible events and their ultimate consequences. All Health and Safety aspects should be assessed at this stage. How do we intend to control and limit the consequences of these events if people involved cannot even provide a solution at this stage? It is unacceptable to conceal facts and realistic concerns associated with the proposed development.

Summary of my Report to the Response to FI Request

Copy of that report -Included in Appendix 3

- The applicants own recommendations are not been meet along the entire stretch of the public haul road even after upgrading works.
- The proposed road width of 5.5m is not verified in accordance with NRA standards or any other published documents and therefore it effectiveness and safety cannot be addressed for such large volumes of heavy traffic.
- Emergencies and contingencies have not been fully considered, addressed or resolved by this recent submission.
- The applicant has identified that the haul route is supported on 2-3m of peat

- The overall impact of the road improvement works on existing land, embankments, slope stability, drainage and private property is not fully assessed.
- Published documents state that there is a statutory requirement to provide for the health, safety and welfare of all employees and members of the public in connection with the design, construction operation and maintenance of pipelines
- Published documents state that it is desirable to avoid a route where the pipeline might be subject to heavy external stresses or where the consequences of a leak, if one did occur, might be particularly serious. In practice, all cross-country pipelines and some local pipelines will have to be subjected to a detailed safety evaluation as part of its consideration.
- The highly flammable liquid transported in the pipeline under pressure creates forces at bends, junctions, valves and all restrictions to, and changes in, direction of flow.
- Additional transient forces may be generated by pump starts or stops, valve closures etc. The vector analysis arising from high-pressure fluid in the pipeline must be resolved and hence the pipeline effectively supported or else it will fail.
- Section 2.2 in the EIS report states that the terminal is designed to throughput of 10 million cubic meters per day (350 million standard cubic feet per day).
- Taking account of the 10 million cubic meters per day and on the basis that 'volume in' equates to 'volume out' then the speed of flow through a 508mm diameter pipeline with a 25.4mm wall thickness will be a whopping c. 2,500km/hr (two thousand five hundred kilometres per hour).
- The applicant has stated the orthophosphate impact to surface watercourses from phosphate-impacted soils is widely recognised as being a major concern in certain parts of Ireland, because it can lead to eutrophication of lakes and rivers. The orthophosphate concentrations

recorded by the applicant in the blanket bog is approximately 250-10,000 times greater than the allowable concentration in lake waters.

- The milling of peat commonly associated with the work that Bord Na Mona does is better compared to harvesting crops than removing saturated blanket bog. This statement is supported with picture evidence in the Bord Na Mona Website.
- The proposed construction work (grouting) resulting in the injection of chemicals into the ground where surface water run-off will flow into rivers and streams and then into a major drinking water supply for the entire region should undoubtedly be avoided. Published documents states that this process should be independently investigated.
- The applicant has now identified that the proposed process of removing the peat is weather dependent. Waterproofing sheeting will have to be placed over the peat every time it rains. Can you imagine acres of peat to be covered with sheets ever time it rains. Therefore, it could take many months and even years to remove the saturated blanket bog in order to meet the criteria put forward by the applicant.

Summary of Appeal Report

- Difficulties encountered during the Planning Process and the withholding of an observation / submission (HSA report) by Mayo County Council until a decision was made is contrary to the Planning and Development Act.
- The HSA advice is limited and only considers that area of land inside the Gas Terminal Security Fence
- The HSA has refused to consider or provide advice on the Health and Safety of the Local People at Work
- The HSA has refused to consider or provide advice on the safety of the public from the upstream (Import) pipeline under their remit (land use planning)
- Pipeline Standards only Consider the Safety of the Pipeline from the public (3rd Party Activity) and not the Safety of the Public from the pipeline. There

The safety of the public from the high-pressure upstream pipeline in blanket bog has yet to adequately verified

- The HSA has admitted and stated that they do not have the expertise in-house to examine all of the necessary land-use planning criteria e.g. slope stability and in that instance they have omitted this major accident hazard event from there examination and have not provided advice for this event in their land-use planning advice HSA report.
- Site Specific Technical Advice is omitted in the assessment and advice given to the Local Authority, by the HSA as they have stated that they do not have in-house expertise
- The conclusions of the HSA report dated 8th April 2004 under land use planning are typical 'template' statements and do not address site-specific issues
- The HSA or local Authority has not considered all toxic substances that can be present in untreated gas and therefore excluding the assessment and advice in relation to the presence of Anticipated Substances
- The alternatives sites would still fulfil the National Policy to develop the Corrib Gas Field and would limit the consequence of a major accident domino effect arising from the Bellanaboy site characteristics
- Convenient Visits to other Gas Terminal Sites arranged by the Applicant are misleading and form no site-specific comparison to the proposed gas terminal site at Bellanaboy
- Independent Consultants Fehily Timoney & Company is only providing notes and commentary to Mayo County Council. They are not providing independent, verified factual conclusions and recommendations. This is evident in the Introduction content of their report

LET US BE AN EFFECTIVE AND RESPONSIBLE NATION FOR ALL OUR ACTIONS

Difficulties Encountered during the Planning Process and the withholding of relevant information by Mayo County Council

Mayo County Council Withheld The HSA report from the Public

Public investigations and observations have been hampered as Mayo County Council and the Health and Safety Authority would not provide a copy of the HSA report prior to a decision by Mayo County Council.

A letter from Mayo County Council to Mr. John Colreavy (representative from the Process Industry Unit of the Health and Safety Authority hereafter referred to as the HSA) does not suggest that the HSA report would become an internal document and it does not suggest that it would not be available to the public until a decision was made.

PLANNING AND DEVELOPMENT SECTION
MAYO COUNTY COUNCIL
ARAS AN CHONTAE
CASTLEBAR

P03/3343
18/12/2003

MR JOHN COLREAVY
HEALTH AND SAFETY AUTHORITY
10 HOGAN PLACE
DUBLIN 2

RE: PERMISSION: CONSTRUCT GAS TERMINAL FOR THE RECEPTION AND SEPARATION OF GAS FROM THE CORRIB GAS FIELD, AND FOR A PEAT DEPOSITION SITE, RESPECTIVELY. THE DEVELOPMENT WILL CONSIST OF THE CONCURRENT DEVELOPMENT OF TWO SITES LOCATED 11 KILOMETRES APART, APPROXIMATELY AND IDENTIFIED AS THE SITE OF THE GAS TERMINAL FOR THE RECEPTION AND SEPARATION OF GAS FROM THE CORRIB GAS FIELD IN THE TOWNLAND OF BELLAGEELLY SOUTH AND THE SITE OF THE PEAT DEPOSITION SITE IN THE TOWNLANDS OF SRAHMORE AND ATTAVALLY, BANGOR BRIS. THE DEVELOPMENT AT THE BELLAGEELLY SOUTH SITE WILL CONSIST OF: A GAS TERMINAL FOR THE RECEPTION AND SEPARATION OF GAS INCLUDING PLANT AND EQUIPMENT; PROVISION OF 4,935 SQ M (GROSS FLOOR AREA), APPROXIMATELY, OF BUILDINGS; ACCESS ROADS; 40 NO. CAR PARKING SPACES; AND ANCILLARY DEVELOPMENTS, OF WHICH 13 HA, APPROX, WILL BE DEVELOPED IN RESPECT OF THE GAS TERMINAL'S FOOTPRINT. THE PROPOSED DEV. WILL OF THE BELLAGEELLY SOUTH SITE WILL ALSO CONSIST OF: THE EXCAVATION AND REMOVAL OF 426,000 CUBIC M OF BELLAGEELLY SOUTH SRAHMORE ATTAVALLY - Applicant Name: SHELL E & P IRELAND LIMITED

Dear Mr Colreavy

I refer to the above application and I enclose herewith one set of documents received with same.

Please let us have any comments before the 22nd January 2004 and return documents.

Mise le meas,

H. Moore

FOR COUNTY SECRETARY

JMM/MM

I believe that the HSA report is a submission or observation in relation to the planning application, and should have been made available for inspection and/or purchase to members of the public prior to MCC making a decision.

Mayo County Council received many phone calls from the public requesting a copy of the HSA report. I was not informed by Mayo County Council when they received the HSA report.

Mayo County Council did not indicate to me at any time that the report would be withheld from the public prior to a decision being made.

Mayo County Council received the health and safety authority report for land use planning advice on the 13th of April 2004, 27 days before the decision to grant permission.

On the 20th of April 2004, I wrote to Mayo County Council, (following a telephone conversation with Mr. Iain Douglas Senior Planner) asking them to confirm to me in writing why the HSA report was not available to the public prior to a decision being made and why it had achieved such a status i.e. internal document (copy below).

FROM REF: 04-025-04MAYO-001

20th April 2004

Brian Coyle
Block 1, 2nd Floor
GFSC
Monemagisha Rd
Galway

Planning Department
Mayo County Council
The Mill
Castlebar
Mayo.

Re: Request for the HSA Report for the proposed Gas Terminal.
Planning Reference Number 03/3343

To Whom It May Concern / Mr. Iain Douglas

This is to notify Mayo County Council that on the morning of the 20th of April 2004, I made a verbal request (by telephone) to Mr. Iain Douglas to view or obtain a copy of the submission/observation documentation prepared by the Health and Safety Authority (National Authority for Occupational Safety and Health) in relation to the proposed Gas Terminal Development referenced under planning number P03 / 3343.

During our telephone conversation, Mr. Iain Douglas informed me that this document is not currently available as it is regarded as an internal document and will be available once Mayo County Council has made their decision.

The consequence of this is that the public are unable to view or obtain a copy of this document and therefore their concerns and observations in relation to the HSA submission will not be considered prior to a decision being made by Mayo County Council. Concerned members of the public have also informed me that they have requested a copy of this document but with no avail.

I therefore request Mayo County Council to confirm to me in writing why this document has this status and is not currently available to the public. Any information submitted by the National Authority for Occupational Safety and Health in relation to this development is certainly of public interest and should be made available as soon as possible giving sufficient time for public verification and examination prior to a decision being made by Mayo County Council.

Yours Sincerely
Brian Coyle
Brian Coyle BE, CEng, MIEI, MStructE
Chartered Engineer

BY FAX + POST

On the 27th of April 2004, I received a written reply to my letter (copy below).

COMHAIRLE CHONTAE MHAIGH EO

Aras an Chontae, Caisleán a' Bharráigh, Contae Mhaigh Eo.
Telefóin (094) 24444 Fax (094) 23937

Your Ref. Ocs Ref.

27th April, 2004

Mr. Brian Coyle,
Chartered Engineer,
Block 1, 2nd Floor,
GFSC,
Monenagaisda Road,
Galway.

COYLE RECEIVED
11 APR 2004
CONSULTING ENGINEER

REF: HAS Report for the proposed Gas Terminal.

Dear Mr. Coyle,

This letter is to confirm our telephone conversation as requested in your letter dated 20th April, 2004. Full consideration will be given the concerns you have expressed.

Yours sincerely,

Iain Douglas
Iain Douglas
Senior Planner.

MAYO COUNTY COUNCIL, Aras an Chontae, Castlebar, Co. Mayo. Tel: (094) 24444

A larger scale copy of this reply letter from Mayo County Council is included in Appendix 4. The response did not address my request and only confirmed our telephone conversation.

On the 28th of April, I wrote to Mr. Iain Douglas again to inform him that the content of his letter does not address my request and again requested an appropriate written response.

OUR REF: 04-025-040420-011
YOUR REF:

28th April 2004

Brian Coyle
Block 1, 2nd floor,
GFSC,
Monenagaisda Road,
Galway.

Iain Douglas
Planning Department,
Mayo County Council,
The Mall,
Castlebar,
Co. Mayo.

Dear Iain,

I have received your letter (Mayo County Council) dated the 27th April 2004. The content of your letter does not address my request as stated in my letter dated 20th April 2004. I attach a copy of my letter that you have already received for your information. My concerns are in relation to the examination and assessment of safety issues. Access to rightful information pertaining to the safety of my family and members of the public has now become time consuming, frustrating and difficult with little time for observation and/or assessment.

I request an appropriate written response to my letter dated 20th April 2004, ref 04-025-040420-011, mainly indicating why the Health and Safety Report has achieved the status it is in.

Yours Sincerely,

Brian Coyle
Brian Coyle BE, CEng, MIEI, MStructE
Chartered Engineer

Encl.
B. Coyle Letter 04-025-040420-011. 20th April 2004
Mayo County Council Response dated 27th April 2004

By FAX + Post.

To date, I have not received an appropriate written response/explanation from Mayo County Council.

A larger scale copy of these letters is included in Appendix 4.

Why was the HSA report withheld from the public before a decision was made?

Members of the public should be entitled to view or copy a document that should identify the risks and safety implications of the proposed development prior to a decision being made.

Planning and Development Act, 2000 Section 38 states that;

(1) Where a planning authority gives its decision in respect of a planning application the following documents shall be made available within 3 working days for inspection and purchase by members of the public during office hours at the offices of the authority:

(a) a copy of the planning application..... obtained from the applicant in accordance with regulations under this act.

(b) a copy any submission or observation in relation to the planning application which have been received by the authority;

(3) Any documents referred to in paragraphs (a) and (b) of subsection (1) which is received or obtained by a planning authority shall be made available for inspection and purchase by members of the public at the office hours of the authority from as soon as may be after receipt of the document until a decision is made on the application

I believe that the actions of Mayo County Council in frustrating and withholding information from members of the public are a serious breach of the relevant Planning Acts and Regulations.

I request the Board to seriously consider and examine these series of events and state if the application is in compliance with relevant Acts and Regulations.

Prior to my request for the HSA report, I informed the HSA that I was prepared to have the HSA report independently verified and examined by an international safety consultant or other competent authority.

The attitude of Mr. Colreavy (Safety Representative from the Process Industry Unit, of the HSA) was, that the HSA is the competent authority and no matter what the HSA advice would be accepted and adopted. This 'competent authority' is limiting their investigations and advice to such an extent that they will not advise against the granting of planning permission for this proposed development.

Correspondence between Brian Coyle (author of this report) and Mr. John Colreavy representative from the Process Industry Unit (PIU) of the Health and Safety Authority during the planning process

Following the failure of Mayo County Council to provide me with a copy of the HSA report, I then tried to view or obtain a copy of the HSA report from Mr. John Colreavy.

On the 20th of April 2004, I wrote to Mr. Colreavy requesting to view or obtain a copy of the HSA report.

Our Ref: 04-025-040020-021

20th April 2004

Brian Coyle
Block 1, 2nd Floor
GFSC
Moncenagisha Rd
Galway

Mr. John Colreavy
Health & Safety Authority
10 Hogan Place,
Dublin 2,
Ireland.

Re: Request for the HSA Report for the proposed Gas Terminal.
Planning Reference Number 03/3343

To Whom It May Concern / Mr. John Colreavy

This is to inform the National Authority for Occupational Safety and Health (HSA) that on the morning of the 20th of April 2004, I made a verbal request (by telephone) to Mr. Ian Douglas of Mayo County Council to view or obtain a copy of the submission/observation documentation prepared by the Health and Safety Authority in relation to the proposed Gas Terminal Development in County Mayo referenced under planning number P03 / 3343. Mr. Ian Douglas has confirmed and described the HSA document that Mayo County Council has received from the HSA.

During our telephone conversation, Mr. Ian Douglas informed me that this document is not currently available as it is regarded as an internal document and will be available once Mayo County Council has made their decision.

The consequence of this is that the public are unable to view or obtain a copy of this document and therefore their concerns and observations in relation to the HSA submission will not be considered prior to a decision being made by Mayo County Council. Concerned members of the public have also informed me that they have requested a copy of this document but with no avail.

As the HSA is the National Authority for Occupational Safety and Health, I therefore request to view or obtain a copy of this document immediately from the HSA. I also request in writing from the HSA that they identify/list all the names and addresses of people, any other authorities / bodies, documents and events (published or otherwise) that has been referenced/consulted in preparation of the recent HSA report. I would expect that all references are included in the content of the report. I also request the HSA to confirm in writing the extent of their investigation and their conclusion, under the terms (Seveso II directive) "establishment", "anticipated substances" "pipelines" "related infrastructure" etc.

Yours Sincerely
Brian Coyle
Brian Coyle BE, CEng, MIEI, MISTructE
Chartered Engineer

I was amazed at the verbal and written response from a representative from the National Authority for Occupational Safety and Health.

HEALTH AND SAFETY AUTHORITY
10 Hogan Place, Dublin 2, Ireland
Telephone: 01 414 7000 Fax: 01 414 7070 Website: <http://www.hsa.ie/hsa>

Mr. Brian Coyle,
Block 1, 2nd Floor,
GFSC
Moncenagisha Road,
Galway.

21st April 2004,

Dear Mr Coyle,

I acknowledge receipt of your "Observations and Objection Report" and your letter of the 20th April 2004.

I was not aware that the HSA report was not available from Mayo Co.Co. and I have spoken to the Department of the Environment, Heritage and Local Government concerning this issue.

Your request for a copy of the report is under consideration.

Yours sincerely
John Colreavy
John Colreavy,
Process Industries Unit

HEALTH AND SAFETY AUTHORITY
10 Hogan Place, Dublin 2, Ireland
Telephone: 01 414 7000 Fax: 01 414 7070 Website: <http://www.hsa.ie/hsa>

Mr. Brian Coyle,
Block 1, 2nd Floor,
GFSC
Moncenagisha Road,
Galway.

22nd April 2004,

Dear Mr Coyle,

Further to my letter of the 21st April I have been advised that the Authority will need to receive a request either under the Freedom of Information Act or Freedom of Access to Information on the Environment Regulations.

As part of the HSA report contains material supplied by another party, the content of that party is being sought, pursuant to Regulation 36 of the European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2000.

Yours sincerely
John Colreavy
John Colreavy,
Process Industries Unit

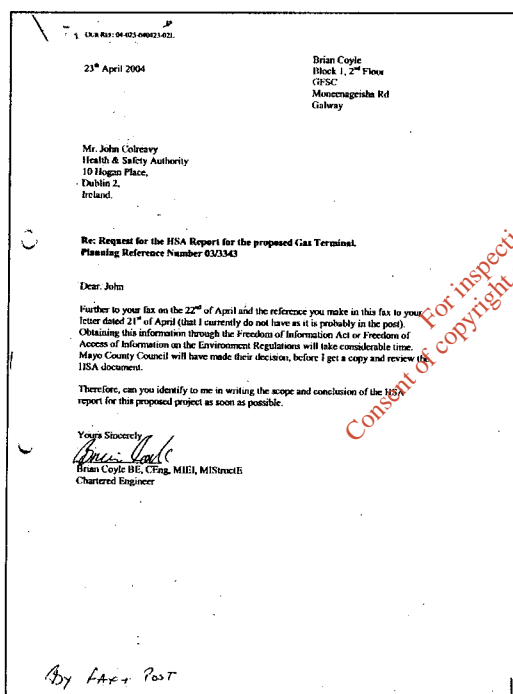
The content of Mr. Colreavy's letter is self-explanatory but quite frustrating for anyone that is trying to view or obtain a copy of the HSA report for their own personal benefit. In summary, like Mayo County Council, the HSA were also obstructing and delaying me from viewing or obtaining a copy of the HSA report. Any reference or input from any technical bodies/persons who was consulted or otherwise in preparation of the report should have realised or be made aware that this

document would be eventually viewed/obtained by the members of the public.

The HSA advice is limited and only considers the area of land inside the Gas Terminal Security Fence

Following receipt of the HSA letters dated 22nd of April; I had a telephone conversation with Mr. John Colreavy. He confirmed to me that the HSA advice is limited to an area within the security fence and that they were not considering or providing advice on the entire area under the control of the operator or advice on the risks arising from the existing site characteristics and its possible 'domino effects' when major accident occurs.

On a final attempt, I wrote to Mr. Colreavy asking him to provide me with the scope and conclusion of the HSA report. A copy of my letter is included below and is available in a larger size in Appendix 4.



I concluded from this conversation that;

- The HSA had redefined the term 'establishment' which they are not allowed to do, as there is a legal definition of this term in SI 476/2000 regulations. Basically, they have limited their investigation and therefore advice under Land-use Planning
- The HSA did not consider all the substances present or treated in the gas processing industry.

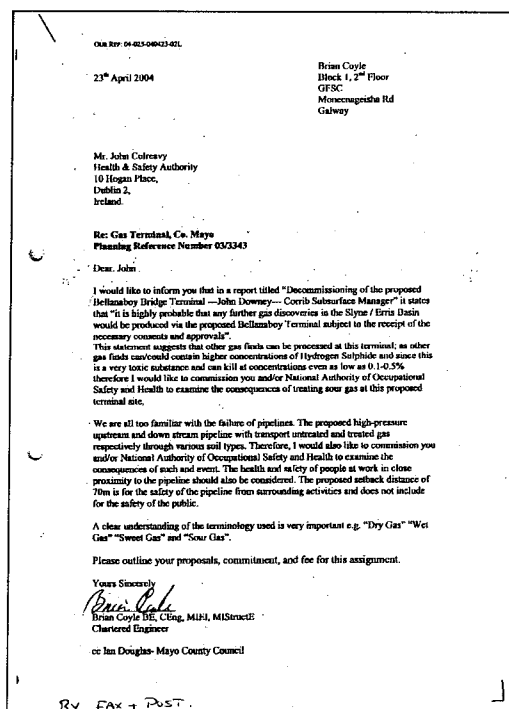
- The HSA advice did not include global slope stability or structural stability of the pipeline.

I was amazed, saddened and very concerned at such an attitude and response from a 'competent authority'.

During a telephone conversation with Mr. John Colreavy, he informed me that they did not advise on the treatment of gas containing Hydrogen Sulphide and didn't expect that gas containing hydrogen sulphide could be treated at the Terminal and confirmed that it was not part of their remit.

On the 23rd of April I wrote to Mr. Colreavy outlining my concerns, that H₂S is as likely to be present as not, in untreated gas and that it was the intention of the applicant to treat any future gas finds in this terminal. In my letter, I also informed him/HSA that I was personally prepared to commission him/HSA to examine and give advice on the following issues

- Upstream pipeline failure
- Treatment of gas containing hydrogen sulphide, Health and safety of the local people when working close to is pipeline.



To date the HSA has not responded to my assignment or my intentions outlined in my letter dated 23rd of April 2004 (2nd Letter). I personally feel that this investigation should be

part of their advice under the Land-Use Planning assessment. I feel so strong about this that I was, and still am, prepared to commission them to examine and advice the public on these risks and consequences. Flare towers are associated with the removal of H2S from untreated gas.

The preamble of the Seveso II directive states:

Whereas analysis of the major accidents reported in the Community indicates that the majority of them are the result of managerial and/or organisational shortcomings;

The Authorities of this country are relying too much on the advice from an Industry that we should be regulating. I plead and ask the question why is the HSA limiting their investigation and therefore their advice. What are they afraid about? Is it that, if they do examine all the possible risks and possible events they will not be able to justify the safety of the environment and members of the public?

The HSA has refused to consider or provide advice on the Health and Safety of the Local People at Work

I informed Mr. John Colreavy that it is their function and role;

- To promote, encourage and foster the prevention of accidents
- To encourage and foster measures directed towards the promotion of health and safety of persons at work
- And to make arrangements for enforcement of relevant legislation

I asked Mr. Colreavy when was the HSA going to examine the safety of the local people working on the land where the upstream high-pressure (import) pipeline was laid and the people working at home, at school etc. adjacent to the pipeline route under the Health and Safety at Work Act.

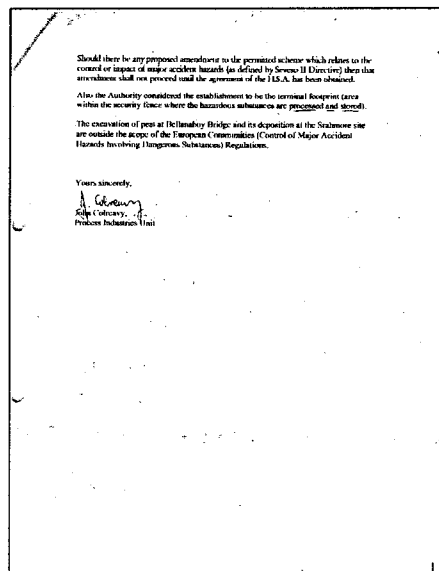
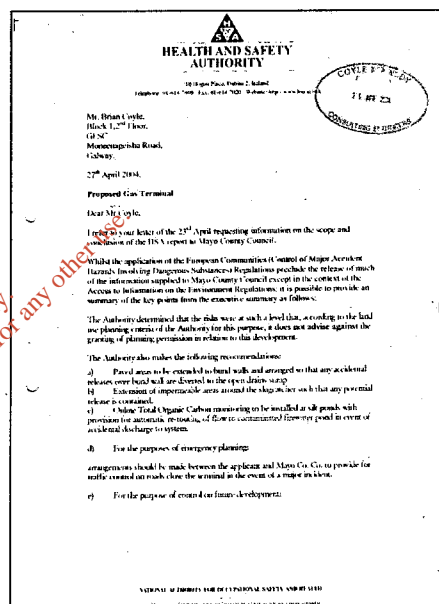
Mr. Colreavy has not responded to this request either. I am not aware of any public safety assessment (for the benefit of the people) or advice given for the upstream (import) pipeline or that section of high-pressure upstream import pipeline that travels under the site boundary in deep blanket bog to the gas terminal.

In relation to safety and health of workers at work the scope of the Seveso II directive state;
The provisions of this Directive shall apply without prejudice to Community provisions concerning the working environment, and, in particular, without prejudice to Council Directive

89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work

On the 29th April 2004, (one day before the decision to grant permission for the development) I received a letter from the HSA outlining their advice and conclusions. The letter is dated 27th of April and is included below. A larger scale copy of this letter is included in Appendix 4.

The content of this letter from a 'competent authority' and the Health and Safety conditions attached to the permission is nothing more than an insult to members of the public.



The HSA has refused to consider or provide advice on the safety of the public from the upstream (Import) pipeline under their remit (land use planning)

Mr. Colreavy, informed me that the HSA would not consider the safety of the public from the upstream (import) pipeline routed through deep blanket bog. Mr. Colreavy stated that the HSA would only consider the safety aspect of the pipeline during the installation and maintenance periods under the Health and Safety at Work Act.

Pipeline Standards only Considers information regarding the Safety of the Pipeline from the public (3rd Party Activity) and not the Safety of the Public from the pipeline

The pipeline regulations and standards set aside specified distances that only take account of the safety of the pipeline from the public and **NOT** the safety of the public from the pipeline. Mr. Colreavy refused to examine the safety of the public from the upstream (import) pipeline and said it was not part of the HSA remit.

This upstream (import) pipeline route is 8km long, is on land adjacent to residential dwellings, sited in a work place as defined under the Health and Safety at Work Act and pass through an abundance of saturated blanket bog that can fail at 2-degrees thus likely to impose excessive load, deformation and dramatic failure.

The Health and Safety at Work Act defines the term 'place of work' and it includes

'any place, land or other location at, in, upon or near which, work is carried on whether occasionally or otherwise..'

Q. Who is responsible for the safety assessment of the public from these pipelines?

I wrote to the Mr Colreavy (HSA) and informed them that I was personally prepared to commission him and/or the HSA to examine the consequences and advise the applicant, local authority and local people of an upstream pipeline failure making it part of the HSA remit.

Mr. Colreavy has not responded to my assignment or request and a copy of my letter to Mr. Colreavy is included in Appendix 4.

This information is necessary and must be made public in preparation of an adequate Safety Report under the Seveso II directive and SI 476/2000 regulations.

The fact is that Local residents residing along the 8km route are not at a safe distance from this proposed development (pipeline route) and will die in the possible event of a major accident and domino effect arising.

A report prepared following a gas pipeline explosion (45 bar) states that people residing hundreds of meters away were killed in seconds. A copy of this in-depth report is included in Appendix 9.

People are residing as close as 60m to the proposed high-pressure (c.150bar) upstream (import) pipeline and will be working directly beside it.

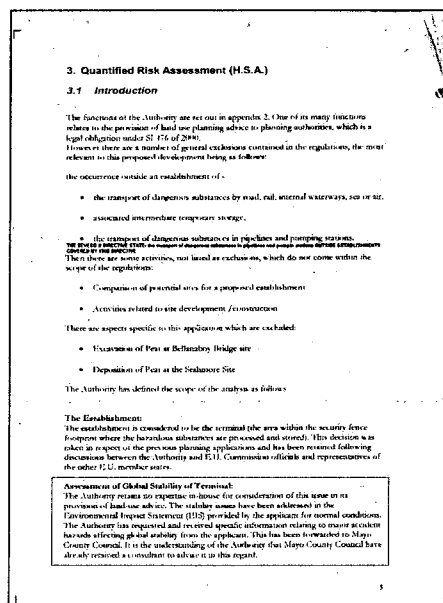
If the HSA could justify the safety of the public from the pipeline (not the pipeline safety) then they would undoubtedly put peoples mind at ease and state and support that fact.

The HSA confirmed receipt of a copy of my observation and objection reports

The HSA has admitted and stated that they do not have the expertise in-house to examine all of the necessary land-use planning criteria e.g. slope stability and in that instance they have omitted this major accident hazard event from their examination and have not provided advice or taking account of this event in their land-use planning advice HSA report.

This remarkable fact is an indication of the limited investigations and advice provided by the HSA. This fact is stated on the last paragraph on page 5 of the HSA Report dated 8th April 2004 'Quantified Risk Assessment (HSA).

A copy of the relevant page is included below and is at a larger scale in Appendix 6



The attitude of the HSA in this instance is not acceptable and does not constitute good advice from an authority regarded as the 'central competent authority'.

The HSA has requested and received specific documentation relating to major accident hazards affecting global stability from the applicant. The HSA has not sought independent technical conclusive advice in relation to slope stability but nevertheless has identified that it can relate to a major accident hazard.

The HSA have omitted site-specific information relating to major accident hazards affecting global stability from their report dated 8th April 2004. They have indicated that they don't even know the status of the document prepared by the consultant employed by Mayo County Council.

It is inadequate for the HSA to request and make reference to a document that relates to major accident hazards and omit the independent conclusive advice relating to this possible major accident event from their land-use planning advice report.

Independent Consultants Fehily Timoney & Company is only providing notes and commentary to Mayo County Council. They are not providing independent, verified factual conclusions and recommendations. This is evident in the Introduction content of their report

Q. If the HSA had the expertise in-house would this mean they would consider major accident hazards affecting global slope stability, and many more possible events that can lead to a major accident?

It is therefore obvious, that the HSA has limited their investigation into possible major accident events because they do not have the expertise in-house to examine them.

Since this independent risk assessment is not independently verified it is therefore incorrect for the HSA Authority to provide advice on land use planning with limited information.

Site Specific Technical Advice is omitted in the assessment and advice given to the Local Authority by the HSA as they have stated that they do not have in-house expertise

The HSA has admitted that they do not have the in-house expertise to examine slope stability.

In their advice on 'land use planning' the HSA have ignored the consequences of the Natural Landslide disasters that they have identified can cause a major accident hazard. The Seveo II directive and/or SI 476/2000 regulation do not allow this approach to be taken- it is therefore illegal to do.

In summary Mr. Colreavy / HSA have provide advice under 'land use planning' requirement without obtaining independent technical support and conclusive advice on any of the following site specific characteristics;

(presumably because they do not have the expertise in-house)

- Consequences of natural landslides slope stability disasters,
- Blanket Bog
- Water pollution
- Forestry (effects and consequences)
- Fire Control
- Control of Major Accident Events that can spread beyond site boundaries and can contaminate lakes and rivers.
- Upstream (import) or Downstream (export) pipeline failure in deep blanket bog
- The consequences and risks associated with removing the peat
- Underlying or Overlaid Peat Slope failure during or after Construction

The consequences and domino effects that can arise from these site-specific characteristics must be examined now and cannot be delayed any further. The Seveso II directive and SI 476/2000 Regulations on the control of major accidents does not state/indicate that the investigations into the causes of major accidents can be delayed until some future date.

Q. Which Competent Authority / Independent company is examining and providing advise to the HSA, Local Authority and/or members of the public on these very likely major accident events?

Here again we are experiencing organisational shortcomings and this time it's from the authority that should be regulating the applicant, the HSA.

I therefore advise the Board to request the HSA to commission recognised authorities and/or independent technical experts recognised under the Seveo II directive and SI 476 regulations to examine and advise on all possible events that would give rise to a major accident. It is then, and only then, that proper sound advice can be given on land-use planning. It is no wonder that the *analysis of*

the major accidents reported indicates that the majority of them are the result of managerial and/or organisational shortcomings – extract from Seveso II directive.

From my examination of a copy of the HSA report on land-use planning dated 8th April 2004, (that I only received 24hrs ago), I can conclude that the advice given in the report does not take account of or include any site-specific issues i.e. as written the text, conclusions and advice of the HSA report can be applied to any gas terminal site any where in the country without changing its conclusion or advice. The report content is more like a 'template' than a site-specific report.

The conclusions of the HSA report dated 8th April 2004 under land use planning are typical 'template' statements and do not address site-specific issues

THE HSA REPORT CONCLUSIONS AND ADVICE DOES NOT ACCOUNT FOR ANY SITE SPECIFIC CHARACTERISTICS

It wouldn't make a bit of difference or change the text or advice contained in the HSA report (conclusion) if the proposed Gas terminal site was been built in a swamp, at the bottom of a hill that is about to collapse, in the middle of a forestry, or adjacent to a major drinking water supply.

If the HSA is not going to consider site specific issues that can lead to major accident events then recognised authorities/technical experts should be providing technical conclusive advice to the HSA and then, and only then, should the HSA give advice on 'land use planning' criteria.

I request the Board to seriously consider these shortcomings and refuse permission for this proposed development.

Q. What is the HSA considering under land-use planning criteria? Their conclusion and advice does not relate to any site-specific issues.

Q. I would advise the Board, when reading the HSA report to identify what conclusion or advice item would change if it was proposed to build the gas terminal at the edge of Carrowmore lake, in a swamp, or at the bottom of Dooncartoon Hill, would it change the content of the HSA report?

The HSA or local Authority has not considered all toxic substances that can be present in untreated gas and are therefore excluding the assessment and advice in relation to the presence of Anticipated Substances

Sour gas in the petroleum industry is often defined, as gas containing $\geq 1\%$ hydrogen sulphide otherwise the gas is regarded as sweet. However, persons exposed to 0.2-0.5% hydrogen sulphide will die i.e. sweet gas can contain enough hydrogen sulphide to kill.

Approximately 40% of untreated gas in Canada is Sour.

Q. Could the gas finds off the Coast of Ireland contain Hydrogen Sulphide?

A. Yes, it can. Hydrogen Sulphide is a bio-gas and is as likely to be present than absent from untreated gas.

Burlington Resources (Most Likely Competitors of the Applicant-Shell) has stated that they have discovered 3% sour gas adjacent to their sweet gas well in the Irish Sea south of the Isle of Man in the Rivers Fields gas wells.



The above picture is extracted from a hand out document given to the public by representatives of the Applicant. Note the outline of Ireland and England. It indicates a 3D view of the Continental Shelf that Ireland and England both share. Superimposed on it, I have indicated the location of the Corrib Gas Well and the Rivers Fields Sour Gas well in the Irish Sea.

A larger scale image of this picture is included in Appendix 8.

The consequences of treating Sour gas should therefore be assessed and advice given thereafter.

Information on the Rivers Fields sour gas wells in relation to the Rivers Fields is included in Appendix 7.

I asked Mr. Colreavy was he going to consider the treatment of gas containing hydrogen sulphide (sour gas). His comment was that the

applicant has identified to him that from preliminary investigations the gas at the Corrib gas well does not contain hydrogen sulphide.

Once again the HSA are limiting their investigations and advice, as they have not considered the presence and treatment of Gas containing hydrogen sulphide. They believe that, at present the terminal is not capable of treating such type of gas and they are accepting the applicants advice that no hydrogen sulphide is present. Flare Stacks are associated with the elimination and treatment of Hydrogen Sulphide.

ONCE AGAIN WE ARE RELYING TOO MUCH ON THE ADVICE FROM AN INDUSTRY THAT WE SHOULD BE ADEQUATELY REGULATING.

The scope of the Seveso II directive and SI 476/2000 regulations does not state that it is appropriate to delay investigations and assessments of presence of anticipated substances. Therefore, as they are substances that can cause a major accident, they must be examined now. The applicant has identified that any future gas finds will be processed and treated at this proposed gas terminal.

Reports following the gas well blowout in China (December 2003) states that it affected 25sq miles. The area was regarded as a death zone. Untreated gas poisoning and hydrogen sulphide poisoning was most likely the main contributing factors to the high fatalities.

The death toll from a natural gas well blowout in south-west China has climbed to 233 as rescue workers began cleaning up a vast "death zone", the official Xinhua news agency said.

The cloud of gas swept across a 25 square kilometre area on Tuesday, devastating villages and poisoning farms. More bodies were found in mountain villages on Sunday... pushing the death toll up by 35. About 1,000 workers were clearing away almost 4,000 animals, including cattle, pigs, rabbits, ducks, chickens and dogs, killed by the gas well burst

Medical workers were disinfecting eight villages, testing drinking water and poisoned crops near the site of the leak, a gas field in Chongqing municipality, Zhang Mingkui, director of the Kaixian County Bureau of Environmental Protection, said.

It is a legal obligation under SI 476/2000 regulations to consider all the anticipated substances present in an Industry.

Seveso II Article 2 Scope Par 2 states

*For the purposes of this Directive, the 'presence of dangerous substances' shall mean the actual or **anticipated** presence of such substances in the establishment*

SI 476/2000 Regulation (a legal obligation) defines the presence of dangerous substances as;

*'those substances present as a raw material, product, by-product, residue or intermediate and the **anticipated presence of such substances** and the presence of those which it is reasonable to believe may be generated during the loss of control of an industrial chemical process and the word 'present' shall be construed accordingly'*

It is obvious once again that the Authorities are limiting their investigations and therefore their advice and recommendations as they are relying on the applicants' advice and actions when in fact they should be adequately regulating them.

Why are the HSA/Local Authorities/other government bodies limiting their questions and investigations in relation to the gas processing industry? Is it to ensure that the project goes ahead on this site irrespective of public safety?

Are they afraid to ask for information in case they cannot justify it?

The HSA is an authority defined in SI 476/2000 regulations as the competent authority who is responsible for 'ensuring compliance with these Regulations and shall fulfil the functions assigned to it by these Regulations' as stated in regulation 5 of SI 476/2000. Irrespective of their legal obligations and even when possible major accident events are pointed out to them, the Authorities including the HSA still try to swindle their way out by relying on historic views approaches, definitions, actions and attitudes of the past when the facts are that new directives, regulations and guidelines are written to acknowledge past events and to change such historic actions and attitudes.

Regulation 8 SI 476/2000 'Demonstration of safe operation'

(1) This Regulation and Regulations 9 to 11 shall apply to all establishments.

(2) In respect of an establishment to which this Regulation applies, the operator shall,

whenever requested by the Central Competent Authority or by an inspector of that Authority, provide or cause to be provided to the Authority or to that person such evidence (including documents) to prove that he has—

- (a) identified the major accident hazards, and
- (b) taken all necessary measures to comply with these Regulations

SI 476/2000 Regulation 28 Part 2 States that:
(Legal obligation)

(2) The Competent Authority shall, using the information received from an operator in a notification sent by virtue of Regulation 11 or a safety report, **identify establishments or groups of establishments where the likelihood and the possibility or consequences of a major accident may be increased because of the location and proximity of such establishments, and their inventories of dangerous substances and on such identification shall inform each operator in writing for the purpose of Regulation 9(3).**

The applicant has identified alternative sites in their submission, has the HSA assessed these sites? If not, why not.

Under regulation 8 of SI 476/2000 (apply to all establishments) the authority can request this information and under regulation 28 they must identify establishments where the likelihood and the possibility or consequences of a major accident may be increased.

The proposed Bellanaboy gas terminal site is certainly a site that should be identified by the Authority as being a site where the likelihood and the possibility or consequences of a major accident is increased due to its location and characteristics. In that regard planning should be refused.

Appendix 2 of the HSA report Section 2 Seveso II Legal Context states;

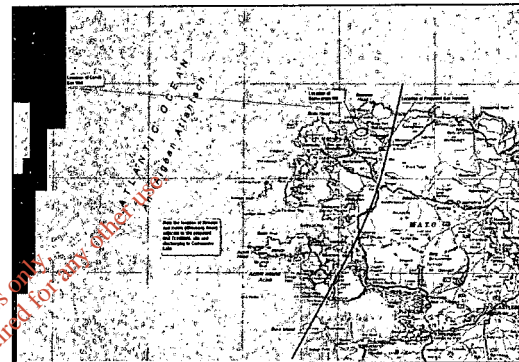
*'The authority advice **does not** deal with site selection or the suitability of one site over another'*

The authority is therefore not complying with regulation 28 of SI 476/2000.

The Authority has not identified establishments where the possibility or consequences of a major accident is increased because of its location. The authorities have let the applicant rule out all other alternatives based on the applicants' own assessment. Once again the authorities are relying on applicants advice when they should be regulating it.

The Proposed and Alternative Site Location Characteristics

It is obvious from the pictures below that a vast amount of alternative sites and area of land is available away from existing natural environmental and public sensitive areas that can have the consequences of a major accident domino effect.



All land and sea west of the red line are alternative locations that should be reviewed for the proposed development.

The proposed site is surrounded with Blanket Bog that can fail at 2-degrees and above as identified by the applicants design team. This can further impact the events of a major accident.

The site is adjacent to Streams and Rivers that can become contaminated in the event of a major accident that can further enhance the consequences and events of a major accident.

The site is adjacent to Carrowmore Lake the only drinking water supply for the entire North Mayo area that can become contaminated in the event of a major accident. The HSA report has identified that risk contour events extend outside the boundaries of the applicants site. This can further enhance the consequences of a major accident.

The proposed gas terminal site is adjacent to Forestry that can ignite and therefore further enhances the consequences of a major accident (visa-versa).

The proposed gas terminal site is in an area of natural ground instability. This area has experienced landslides in 1983 and 2003.

There are alternative sites available that do not pose such risks.

- The alternative sites are not beside a major drinking water supply
- The alternative sites are not surrounded in blanket bog
- The alternative sites are not in an area of natural ground instability
- The alternative sites are not adjacent to forestry
- The alternative sites does not require the excavation and removal of 450,000m³ of peat containing approximately 405,000,000 (405million) litres of acidic water to enable its construction
- The alternative sites does not require a peat deposition site
- The alternative sites does not require a haul route for peat deposition
- The alternative site does not require permanent retaining structures to retain peat that can become unstable in the event of a major accident
- The alternative sites does not require an 8km upstream high-pressure pipeline
- The alternative sites does not require a upstream pipeline through an abundance of blanket bog
- The alternative site does not require an upstream pipe route to pass through the work place of many
- The alternative sites are closer to the gas well than the proposed site
- The alternative sites are much safer and do not pose such overwhelming risks and consequences to the public and the environment.

I request the Minister for communications, Marine and Natural Resources to influence the applicant that alternative sites are more readily available that do not pose such overwhelming environmental, traffic, slope stability, and water contamination risks.

I therefore request the Board to refuse planning for the proposed development at the Bellanaboy and Srahmore site, as there are alternative sites more readily available that dramatically reduce the consequences of a major accident.

Q. What information did the applicant/operator provide that identifies the major accident hazards to the HSA?

Q. What are these hazards and consequential risks?

Q. What questions did the HSA request from the operator?

Q. Has the applicant/operator identified all the possible effected areas arising from a major accident?

Q. What measures are proposed by the Authorities to minimise major accident events and limit their consequence? This is the Aim of the Seveso II Directive. Where are the regulating measures in the planning conditions?

It appears that the risk contours identified do not identify the entire effected areas arising from a major accident. The area affected arising from a major accident can undoubtedly go beyond the site boundaries and therefore outside the control of the operator.

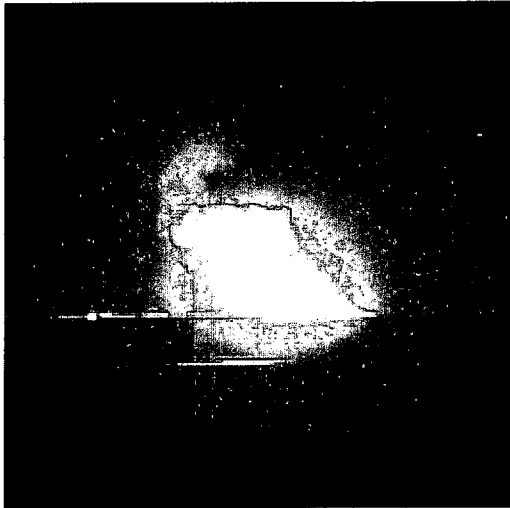
The risk contours identified in the HSA report appear to be quite circular in nature, which would suggest that a low wind speed was chosen in their assessment.

What wind speed was used in the risk assessment?

A gas cloud can be carried in the wind before it ignites, what time was chosen prior to the gas cloud igniting and exploding?

In the HSA assessment How far had the gas cloud travelled before igniting?

Evidence and reports from Medium pressure Pipeline failures (45 Bar) affected areas up to 3 square miles following their failure and explosion. The volume of substance that affected these areas is small compared to the volume of substance to be stored and treated at the Bellanaboy gas terminal.



Fire from the gas pipeline explosion (photo by Duane Macsymach, Brandon, MB)

BROOKDALE, MANITOBA Natural Gas pipeline explosion. 14th of April 2002. Reported that vibrations arising from the explosion was felt six miles away. Note the spread of fire on the ground to the left of the picture. The following day the Authorities were keeping people back 3km from where the explosion occurred.

If this occurred at the terminal site in Bellanaboy;

Q. What would happen to the surrounding blanket bog would the vibrations cause a domino effect? The factor of safety of 1.23 provided by the applicant's consultant would certainly NOT be enough. It means that in an explosion event a 1m width of gabions would not be able to support a 1.3m width of peat. Adjacent gabions can be dislodged in the event of an explosion and no one can guarantee the stability of gabion retaining structure against that type of failure.

Q. What would happen to the substances stored at the terminal site?

Q. What would happen to the forestry, this would surely ignite?

Q. What would happen to Carrowmore Lake, would it become contaminated?

Q. What would happen if the explosion severed the control umbilical line to the wellhead?

The pipeline that failed in the picture above was probably installed to the best standards and regulations available and was supposed to be maintained and upgraded when necessary.

How come this major accident happened?

I'm sure the authorities and operators also thought they had everything covered and that it was unlikely that a major accident like this was

going to happen. They probably produced pages and pages of risk contours and safety reports to justify that it was 'probably safe and an unlikely event' or may be they didn't bother assessing it at all, just like what the HSA and the applicant is doing now in their submissions.

In section 3.4.4 of the HSA report the applicant states *that the worst possible consequence would be caused by a full-bore rupture at the high-pressure import gas pipeline*. It is obvious that this event would kill and have a major effect on the surrounding environment including the stability of Dooncarton Hill.

New Mexico Gas Pipeline Explosion, caused by a heat source approximately 200m away from the pipeline killed everyone that was residing in the nearby campsite that was between 100-200m away. The effects of the pipeline explosion was equivalent to placing 5.7 tonnes of TNT in the ground

A Gas Pipeline rupture and explosion occurred in New Mexico on the 19th August 2000. A detailed report of the incident is included in Appendix 9 and its content is frightening. Seismic signals from the pipeline incident were recorded as far as 136km from the explosion. Large sections of the pipeline were found 87m from the blow-out. It would have taken 5.7 tonnes of TNT buried at a depth of 4m to create a crater and have similar effects. A heat source approximately 200m away was the likely cause of the explosion.



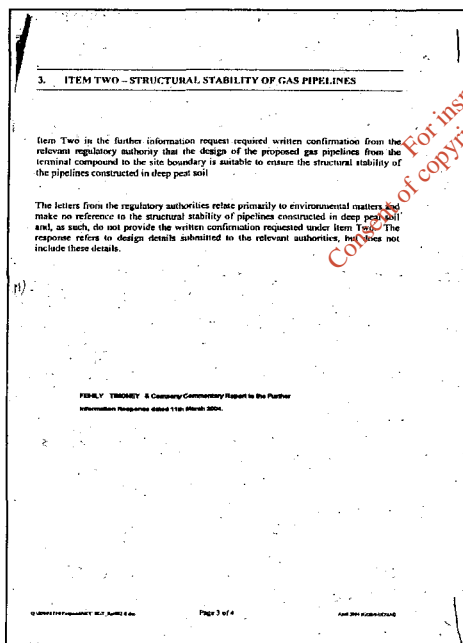
Note the size of the people standing around the crater. This is only a 45 bar pressure pipeline explosion the proposed pipeline pressure is three times that. If this happened at Bellanaboy undoubtedly the stability of Dooncarton Hill would be affected and many people would loose their lives. The permanent retaining wall would be completely dislodged and blown away.

In this regard the risks associated with this development on the proposed site surrounded in blanket bog, in an area of natural ground instability, adjacent to forestry and streams and Carrowmore Lake is all a recipe for a major domino effect disaster.

I identified to the local authority that the structural stability and performance of the upstream (import) pipeline to the Corrib gas terminal in deep blanket bog should be identified and assessed, as the risks of pipeline failure is inevitable. Mayo County Councils further information request, Item No. 2 request this information from the applicant. The applicant has not justified the structural stability and long term performance of the pipeline in deep blanket bog. I made this known to Mayo County Council in my second report (refer to Appendix 3.

In this regard, what qualification or assessment has the HSA used that allows them to state that this an upstream pipeline explosion is 'an unlikely event'? The Seveso II directive and SI 476/2000 regulations requires them to identify all risks and events and to limit their consequences on the public and the environment. It does not allow the HSA/Operator/Local Authority to attach the 'unlikely event scenario' in any circumstance or risk assessment.

Fehily Timoney & Company employed by Mayo County Council also state that the structural stability of the pipeline in deep peat has NOT been adequately addressed.



Since this has been identified as one of the worst possible consequences of a major accident, should it not be the advice of the HSA to the applicant, that they should limit the length of the upstream (import) pipeline that can ultimately cause the 'worst possible consequence arising from a major accident' Alternatives are available that limits the length of the upstream (import) pipeline.

A conclusion of this kind put forward by the HSA is extremely worrying and begs the question, is the HSA fulfilling their role and function?

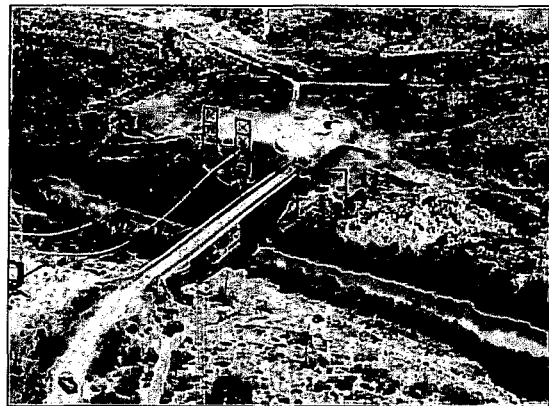
Letter to Ms. Mary Harney TD outlining the Discrepancy in the application of SI 476/2000 Regulations and Council Directive 96/82/EC on the Control of Major Accident Hazards

This discrepancy has resulted in an unauthorised EU Directive relaxation in the application of the SI 476/2000 Regulations compared to the Seveso II directive. It further enables/allows the HSA to limit their investigation and advice on Land-use planning.

A copy of my letter to Ms. Mary Harney T.D. is included in Appendix 11. Now we are experiencing shortcomings in the role of our government ministers when implementing EU Directives.

A conclusion to a 'Land-use planning assessment' and a relaxation of EU Directive recommendations supports the statement made in the Seveso II directive when it states;

Whereas analysis of the major accidents reported in the Community indicates that the majority of them are the result of managerial and/or organisational shortcomings;



Picture 3 Gas pipeline explosion.

Note the affected grey/black surface area to the North of the river. This is the area of ground affected from a relatively low-pressure gas pipeline explosion. Imagine what the outcome would be if this happened at the Bellanaboy Gas Terminal Site, or along the upstream (import) pipeline, the contamination of Carrowmore lake etc.



Picture 4 (local area within the affected zone)
Picture 4 shows a larger scale picture of the affected area shown outlined in a red box in picture 3 above.

Based on pipeline failure accidents that are happening throughout the world and noting that the HSA stated that this event would result in the worst possible consequence, then I can only conclude that pipelines placed in blanket bog, that can become unstable at angles of 2 degrees and above, so close to dwellings and the already unstable Dooncarton hill would constitute an unacceptable risk to the health and safety of the local community and people residing in the North Mayo area. The proposed development at this particular site would, therefore, be contrary to the proper planning and development of the area.

The events that have occurred since the last submission mainly recent pipeline explosions throughout the world and Dooncarton Hill Landslide, including 911, reinforce the Board's previous decision to refuse permission for gas terminal development on this site.

Refer to appendix 10 for explosions and Fires associated with Shell Group Companies that have occurred between 1992-2002. It is frightening to believe that so many events are occurring.

Alternatives are available for the development of the Corrib Gas Field.

These alternatives would still fulfil the National Policy to develop the Corrib Gas Field and would limit the consequence of a major accident

At the very least, if an onshore site is required then it should be:

- Outside the catchment of a major drinking water supply thus reducing the consequences of a Seveso II event.
- In an area with surrounding ground stability, where such large quantities of Peat should not have to be retained and removed thus reducing a traffic hazard, acidic peat removal and 400 million litres of acidic water.

- Where most of the raw materials can be quarried on site for hardcore fill and concrete etc.
- In situations like this, the Health and Safety of livelihoods should take precedence over areas of special conservation and areas of scenic amenity. There are many other sites available in Erris and indeed in Mayo, where the high risk events and the potential consequences of a gas terminal is dramatically reduced.

Identification of Major Accident Events and Domino Effect arising from the proposed development

The Preamble of the Seveso II directive states:

Whereas major accidents can have consequences beyond frontiers; whereas the ecological and economic cost of an accident is borne not only by the establishment affected but also by the Member States concerned; whereas it is therefore necessary to take measures ensuring a high level of protection throughout the Community;

SI 476/2000 Regulation 28 Part 2 States that;

(2) The Competent Authority shall, using the information received from an operator in a notification sent by virtue of Regulation 11 or a safety report, **identify establishments** or groups of establishments where the likelihood and the possibility or consequences of a major accident **may be increased because of the location** and proximity of such establishments, and their inventories of dangerous substances and on such identification shall inform each operator in writing for the purpose of Regulation 9(3) (which applies to all establishments).

Major Accident Domino Effect 1

Industrial Accident at Terminal ->Water contamination (Runoff, streams, rivers) -> Forestry Fires -> Carrowmore Lake contaminated ->Personal Health affected 25miles arising from contaminated drinking water from Carrowmore lake.

Major Accident Domino Effect 2

High Pressure Gas Pipeline Leak close to Site Boundary -> Explosion -> Permanent Retaining Structures dislodged and moved->Vibrations cause peat slope failures-> impact to gas terminal, fire water storage ponds, storage structures (explosion again), rivers streams, forestry, Carrowmore Lake contaminated.

Blanket Bog impacting the pipeline or the blanket bog not capable of supporting the high-pressure pipeline high forces causes excessive local deformation in the pipeline and the pipeline fails.

Major Accident Domino Effect 3

Gas Leak ->Wind ->Gas Cloud Carried in the Wind-> Gas Cloud Ignited-> Explosion->Active Pressure on Retaining Structures->Blanket Bog Failure-> Heather and Internal Forestry Fires->->Streams and Rivers contaminated-Carrowmore Lake Contaminated etc

Major Accident Domino Effect 4

Natural ground movement-> pipeline leak -> chemical contamination of surface water runoff -> Carrowmore lake contaminated- Public Health affected c.25miles beyond the location of the accident.

This can occur in Upstream and/or Downstream pipelines outside site boundary. This is outside the control of the operator. This scenario is greatly increased in the presence of Blanket Bog and the failure possibility identified by the applicant that peat can fail at an angle of 2-degrees and above. Coupled with this is the location of Carrowmore Lake.

Major Accident Domino Effect 5

Upstream pipeline damaged due to third party activity and/or due to subsidence/movement of the supporting blanket bog-> High pressure flammable substance escape including gas cloud-> Residents in the vicinity of the pipeline killed-> Vibrations arising from explosion further destabilise the already unstable Dooncarton Hill-> Landslide->etc.

The Health and Safety recommendations/conclusions in the planning conditions are an insult to the local residents and concerned members of the public.

In summary they are;

- PC 33 -Adequate water supply
- PC 34& 35-Placing a few more paving slabs --oh and extend that permeable area
- PC 36- Monitor organic carbon

What about the controls that should be put in place for the limitation of a major accident and the consequences thereafter?

What about regulating the operator ensuring that they adhere to specific directives, regulations and guidelines?

What penalties will be imposed if the operator do not implement or adhere to regulations and standards?

If the HSA report were judged in a court of law, I would predict that it would be found that it contains little or no substance and offers extremely limited protection to the environment and members of the public in the North Mayo Area. It is more in favour of the applicant than the concerned members of the public.

As stated previously the HSA conclusions and advice is 'template-like and typical of any gas terminal regardless of where the site is'. Their conclusion does not contain site-specific references.

Q. Did the applicant write the HSA report?

If this is the only conclusion that the HSA can come to after referring to the Seveso II directive and reference to major accident events and their supposed to be regulating SI 476/2000 regulations then there as well not to have an input at all.

There would be more stringent Environmental, Health and Safety planning conditions for a farmer's slatted house than this proposed development. This is ridiculous, but typical! It is obvious from the recommendations made by the HSA that its has not considered all potential major accident events arising from this proposed development.

Appendix 3 of the HSA report states;

'In practice, the establishment is considered to be the area within the security fence footprint where the hazardous substances are processed and stored. This area comes under the remit of the regulations. This approach has historically being taken and has been retained following discussions between the Authority and E.U. Commission Officials and representatives of the other E.U. member states.'

The term establishment is legally defined in SI 476/2000 regulations as;

'the whole area under the control of the operator where dangerous substances are present in one or more installations, including common or related infrastructures or activities and includes new, existing and other establishments'

Regulation SI 476/2000 clearly defines what the definition of 'establishment' is and **does not allow** the HSA to use the terms or references like

'In practice'

'Is considered'

'Security Fence'

'This approach has historically been taken...'
in order to define what 'establishment' means.

The definition given in SI 476/2000 is clear, unambiguous legal and binding and does not require/allow the HSA to redefine it. The HSA should be examining the whole area under the control of the operator where dangerous substances are **present**.

The statement from the HSA '*This approach has historically been taken..*' is extremely worrying and concerns me with regard to fulfilling the aims of the Seveso II directive and associated regulations.

EU Directives, Regulations and Guidelines are continuously been written, implemented, and revised to remove historic interpretations and approaches in order to prevent past events from reoccurring.

Here we have an Authority that wants to keep implementing historic approaches even after the implementation of legal regulations that requires their removal.

The preamble of the Seveso II directive states;

Whereas use of a list specifying certain installations while excluding others with identical hazards is not an appropriate practice, and may allow potential sources of major accidents to escape regulation;

I therefore request the Board to refuse permission for this development.

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Convenient Visits to other Gas Terminal Sites arranged by the Applicant are misleading and form no site-specific comparison to the proposed gas terminal at Bellanaboy

The applicant conveniently arranged a visit for government and local authority officials to visit the Anjum gas terminal in the Netherlands.

The need for the local authority and government officials to visit gas terminal sites is an indication that people have not carried out adequate research and are not familiar with the gas industry process and its associated risks. It is also an indication that they are not familiar with the additional domino major accident effects characteristics that come attached to the proposed gas terminal site at Bellanaboy, (Surrounded in Blanket Bog, Adjacent to Streams, Rivers and Lake The only main water supply for the entire North Mayo Area).

It is obvious, that there is no other gas terminal site in the world that is similar in characteristics to the Bellanaboy site.

It is therefore no wonder that the only comparison that Mr. Iain Douglas (Senior Planner with Local Authority, Mayo County Council) has made is that the gas terminal 'is similar in size (output) to that proposed in Bellanaboy'.

Most people are familiar with the risks posed by the superstructure elements of a gas terminal above ground. Our concerns and queries should be how stable are the substructure elements below ground (items that we cannot see by a brief visit) and what will happen if a major accident occurs that cannot be controlled before it causes a domino effect.

A. The Anjum Terminal did not have and upstream (import) pipeline travelling 8km on land. The planners report suggests that this pipeline was within the site boundaries and therefore secure from third party activities.

Q. Was the Anjum Terminal surrounded with Blanket Bog?

Q. Was the Anjum Terminal adjacent to a major drinking water supply?

Q. Was the Anjum Terminal adjacent to Forestry?

Q. Did the applicant invite or arrange a visit for government and local authority officials to visit a site where a major accident occurred?
Refer to Appendix 10 for an in-depth list of accidents that has occurred between 1992-2002 at Shell Group Companies.

Q. Has any member of the Local Authority, HSA or Government Officials visited a site where a Major Accident occurred? My concerns relate to operational and natural occurring risks and the consequences of those risks to cause a major accident domino effect.

This proposed terminal at the Bellanaboy Site should not be compared to the Gas terminal in Anjum, Netherlands or any other gas terminal. The proposed Bellanaboy gas terminal and its surroundings is the only gas terminal site of its kind, and that's a fact.

Independent Consultants Fehily Timoney & Company is only providing notes and commentary to Mayo County Council. They are not providing independent, verified factual conclusions and recommendations. This is evident in the Introduction content of their report

The introduction of the Fehily Timoney & Company report dated 24th February 2004 states that;

*'this geotechnical **NOTE** has been prepared by Fehily Timoney & Company (FTC) further to a request from Mayo County Council (MCC) to provide and independent **COMMENTARY** on geo-technical aspects'*

The terms 'NOTE' and 'COMMENTARY' indicates that these reports do not provide independent, verified factual conclusions and recommendations. Therefore the report prepared by Fehily Timoney & Company should not be considered as a means of providing 'technical advice' to the Local Authority.

Consequences of Peat (Blanket Bog) Removal

This recent application has dramatically increased the consequences and potential impacts of the proposed gas terminal development compared to the previous application. It is misleading for anyone to suggest that the potential consequences of this development is less and that the 'peat issue has been resolved'.

The problem previously encountered with the peat has only been transferred from one site to another and thus increasing the impact and consequence of the proposed development.

How come Board Na Mona was not capable of providing an adequate solution for the last application that was refused by the Board?

Now, the applicant has admitted in Section 8 Soils, Geology and Hydrology Subsection 8.4 Potential Impacts that:

*" its not unusual for **Bog failures** with man interference have occurred on slopes as shallow as 2 degrees. Both **natural** and **man-made** drainage measures have also often been identified as a contributory cause of some failures. The use of **trackways** across peat land can also impose additional loads, which could contribute to slope failures."*

In its bulk virgin undisturbed state, peat failures have occurred on slopes as shallow as 2-degrees. According to the planners report the peat deposition site at Srahmore is 1.8 degrees what a coincidence!

However, based on past possible events there is only $2/1.8 = 1.11$ factor of safety against the sliding of peat in its natural in-situ state in an area where the peat has formed over thousands of years and the fibre material has embedded/drown across all surfaces of the peat.

Considering that the proposed peat excavation technique will be saturated, disturbed and [loaded-transported-unloaded] three times before final placing, and that the saturated blanket bog will be placed on a site that has a bare cutaway surface 'devoid of vegetation'.

Evidence from natural occurring events of peat slope failures is certainly more realistic and more reliable than laboratory tests and examinations of relatively small samples.

Therefore, It is reasonable to suggest that the calculated factor of safety against sliding of (1.11) based on the applicant's advice, which is based on natural occurring events, is not adequate as the peat is placed on cutaway

bog, devoid of vegetation, disturbed and most likely very wet. The peat will also become saturated again over periods of prolonged rainfall on the Srahmore site.



This proposed development affects two very sensitive sites both North and South of the Carrowmore Lake (the only major clean water supply for the entire North Mayo Area).

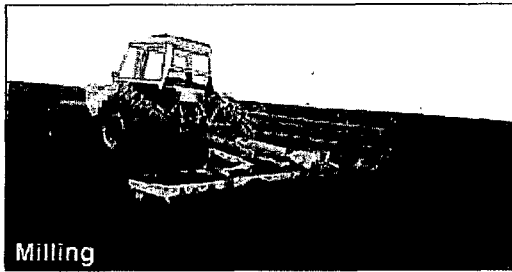
At the hearing arising from the previous application it was determined, with some difficulty that there would be 7,600 truck movements arising from the development. This was false and misleading information. Truck turning movements arising from this recent application will now exceed 100,000 movements. The haul route is the shortest route available to Mayo (Castlebar) General Hospital. This road will be heavily congested with trucks travelling in both directions during the peat excavation stage and construction stage. It will hinder and delay any emergency from getting to Mayo General Hospital.

Consider a pregnant woman about to give birth to a child or a person expressing chest pains prior to a heart attack travelling in a family saloon, on a slippery surface, congested with trucks and it being extremely difficult to overtake as trucks are travelling in both directions, trying to get to Mayo General Hospital as quickly as possible. In this instance time is everything!

This proposal is placing people's lives at risk during all stages of the proposed development.

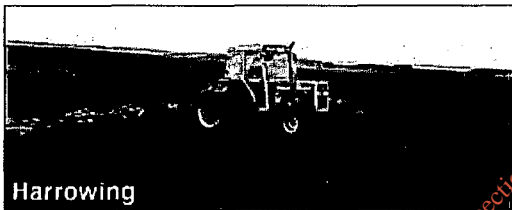
It is proposed to remove 450,000m³ of Peat off-site. This is saturated blanket bog with approx. 90% moisture content. It has been determined that approximately 405,000,000 (405 million) litres of acidic water is contained within 450,000 cubic meters of blanket bog that is proposed to be removed. This cannot be compared to volumes of dried powder such as peat commonly transported by Board Na Mona.

Board Na M6na involvement with peat through the years is dealing with milled peat i.e. they effectively scrape the top 10-15mm from the surface and put it into windrows.



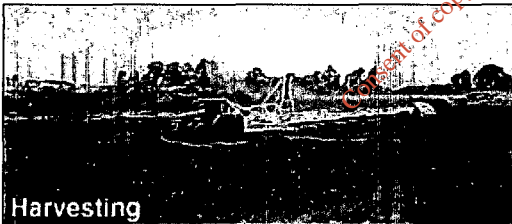
Milling

Source Board Na M6na Website www.bnm.ie



Harrowing

Source Board Na M6na Website www.bnm.ie



Harvesting

Source Board Na M6na Website www.bnm.ie

Work commonly carried out by Board Na Mona is better compared to harvesting crops that moving, treating and placing saturated blanket bog.

The HSA has stated that activities relating to site development/construction do not come within the scope of the regulations. The HSA also confirmed that their remit for land-use planning under the regulations excludes the assessment and safety advice associated with the excavation of Peat at Bellanaboy site and the deposition of the Peat at the Srahmore site.

At this stage, this is not surprising; as the HSA have excluded almost everything else from their remit in determine their advice on land-use planning.

In response to the Further Information request the applicant has identified that the proposed process of removing the peat is now **weather dependent**. Waterproofing sheeting will have to be placed over the peat every time it rains. Can you imagine acres of peat to be covered with sheets ever time it rains. Therefore, it could take many months and even years to remove the saturated blanket bog in order to meet the criteria put forward by the applicant.

The applicant has stated the orthophosphate impact to surface watercourses from phosphate-impacted soils is widely recognised as being a major concern in certain parts of Ireland, because it can lead to eutrophication of lakes and rivers. The orthophosphate concentrations recorded by the applicant in the blanket bog is approximately 250-10,000 times greater than the allowable concentration in lake waters.

The applicant has been working and experimenting on the proposed gas terminal site since the first application was submitted and even more extensively over the past few months. It was noted when local residents visited the site on the 26th of March 2004; they witnessed extensive work had/was being carried out without any obvious protection to prevent water pollution. This has been noted on page 10 Par 1 of my second report. A copy of that report is included in Appendix 3. During the visit, this was highlighted to representatives of the applicant but they could not provide evidence of adequate water treatment.

The peat contains phosphorus concentrations between 250-10,000 times greater than what is currently allowed in streams and rivers. It has now been reported that Algal Bloom have occurred in the lake.

Q. Which authority is responsible for the safety implications of these activities and the potential consequences of there effects?

I request the Board to identify from their examinations who is to be held responsible if accidents occur. (Slope Failure, Water Contamination, Traffic Accident arising from the development)

I advise the Board that some authority **MUST** be held accountable for the proposed works and the potential consequences of this proposed development.

It is my suggestion that the Applicant / or their partners in business will not be held accountable for all possible consequences that has the potential to occur.

I request the Board to refuse permission based on the risks of peat excavation, removal, retention and deposition.

Conclusion

I conclude that the proposed development would constitute an unacceptable risk to the health and safety of the local community and of the general public residing in the vicinity of the site and the upstream (import) pipeline and on the public road.

This recent submission in comparison to the last submission (moving of peat off-site) would constitute a greater and unacceptable risk of pollution to sources of potable waters of Carrowmore Lake and Gleanmoy River.

It would further constitute an unacceptable risk of pollution of salmonid waters in Glenamoy River, Sruwaddacon Bay and Carrowmore Lake. It would also seriously injure the amenities and values of properties adjacent to the proposed gas terminal and its related infrastructures.

The proposed development would further constitute an unacceptable risk to members of the public especially local residents in the vicinity of the terminal site.

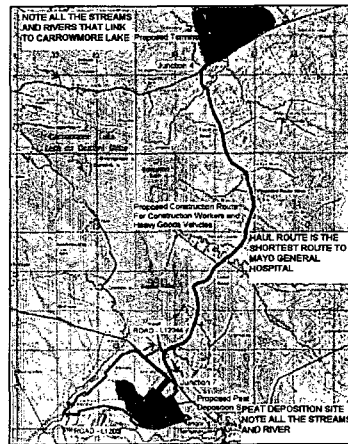
That in the event of a accident occurring, the proposed type of development would present such 'domino effects' that under the present facilities and infrastructures development of the area would further constitute and unacceptable risk to the environment, local community and members of the public.

That in the event of a major accident occurring, the proposed development type would constitute and unacceptable risk to the dislodging and removal of permanent retaining structures that are required to provide global stability to the peat surrounding the terminal.

It is also reasonable to consider that the peat deposited at the Srahmore site has a high probability of failure and the proposed development would constitute an unacceptable risk to the public road, and the salmoid rivers adjacent to the Srahmore site.

It is also reasonable to consider that in the absence of accountable independent verification of the structural stability of the upstream pipeline surrounded in blanket bog and based on recent pipeline failures and local landslides and the overwhelming destruction and loss of life that there is a high probability of failure and therefore the proposed development would constitute an unacceptable risk to the public road, local residents, stability of the already unstable Dooncartoon hill and permanent retaining structures required for the global stability of the peat surrounding the site.

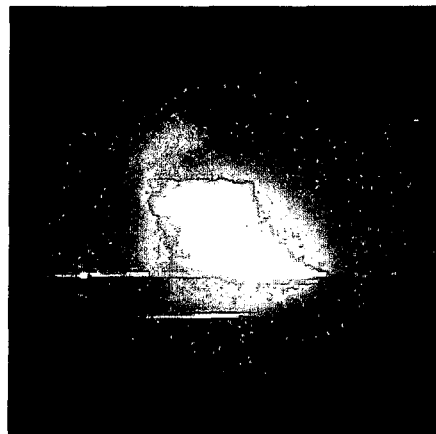
I THEREFORE CONCLUDE THAT
PERMISSION SHOULD BE REFUSED



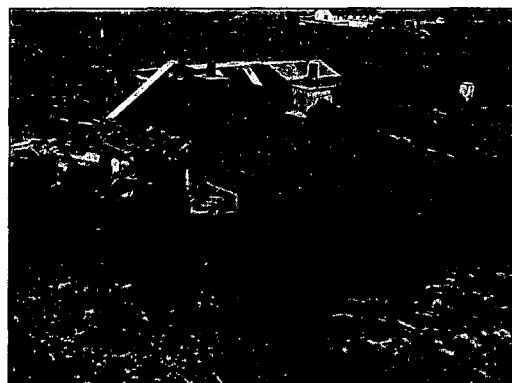
Site(s) Location



Pipeline Failure



Pipeline Failure



Dooncarton Hill Landslid