(8)

S. 37

File With _____

SECTION 131 FORM

Appeal NO: PL 16.207212. **Defer Re O/H** ☐

TO:SEO

Having considered the contents of the submission dated/ received 07/10/04. from Mayo County Council I recommend that section 131 of the Planning and Development Act, 2000 be/not be invoked at this stage for the following reason(s):. No new issues.

E.O.: Kieron Somers **Date:** 07/10/04.

To EO: _____

Section 131 not to be invoked at this stage. ☑

~~Section 131 to be invoked – allow 2/4 weeks for reply~~ ☐

S.E.O.: M. Dolan **Date:** 7/10/04

S.A.O: _____ **Date:** _____

M _____

Please prepare BP _____ **- Section 131 notice enclosing a copy of the attached submission**

to: _____

Allow 2/4weeks – BP _____

EO: _____ **Date:** _____

AA: _____ **Date:** _____

CORRESPONDENCE FORM

Appeal No: PL 11.207212

M r Fagan

Please treat correspondence received on 07/10/04 **as follows:**

1. Update database with new agent for Applicant/Appellant _____	
2. Acknowledge with BP 23	**1. RETURN TO SENDER with BP** _____
3. Keep copy of Board's Letter ☐	2 Keep Envelope: ☐
Response to section 131.	3. Keep Copy of Board's letter ☐

Amendments/Comments

4. Attach to file	**RETURN TO EO** ☑
(a) R/S ☐ (d) Screening ☐	
(b) Mapping ☐ (e) Inspectorate ☐	
(c) Processing ☐	

	Plans Date Stamped ☐
	Date Stamped Filled in ☐
EO: Kieran Somers	**AA:** James Fagan
Date: 07/10/04.	**Date:** 7/10/04

COMHAIRLE CHONTAE MHAIGH EO

Aras an Chontae, Caislean a 'Bharraigh, Contae Mhaigh Eo.
Teileafóin (094) 24444 Fax (094) 23937

Your Ref. Our Ref.

FAX COVERING SHEET

DATE: 7th October 2004

TO: The Secretary, B.P.

FROM: County Secretary, MCC

TOTAL NUMBER OF PAGES (INCLUDING COVERING SHEET) 5

COMMENT: Please find attached letter re:-
Gas Terminal, Co. Mayo
Planning Register Ref: P03/3343

This material is being sent from Fax No. (094) 20390
If there are any problems on receipt, please telephone (094) 24444 Ext 5695

ARCHITECTS OFFICE

COMHAIRLE CHONTAE MHAIGH EO

Aras an Chontae, Caislean a 'Bharraigh, Contae Mhaigh Eo.
Teileafóin (094) 24444 Fax (094) 23937

Your Ref. Our Ref.

The Secretary,
An Bord Pleanala
64, Marlborough St.
Dublin 2.

Appeal Ref. Pl. 16.207212.
Planning Register Ref. P03/3343.

Construct gas terminal for the reception and separation of gas from the Corrib field and for a peat deposition site at Bellanagelly South, Shramore, Attavally, Bangor Erris ,Co. Mayo.

Dear Sir,

Further to you letter of 17th September 2004 and enclosed material relating to the applicant's submissions of 31st August and 15th September 2004.

The material addresses a number of different issues:

- The Geotechnical Risk Assessment contained in the EIS,
- The proposed method of Peat Stabilisation by cement/lime binder,
- The Environmental impact of the proposed method of Peat Stabilisation by cement/lime binder,
- Roads & Transportation,
- Phosphates on the terminal site.

Mayo County Council has the following observations under those headings.

The Geotechnical Risk Assessment contained in the EIS.

The concept of preparing a formal Geotechnical Risk Register is relatively new (see Appendix 2, dated 2001). It is a process, which is still in the early stages of development.

...../

The information requested by the Board appears to be predicated on an assumption that the probability assessment of the occurrence of the stated hazards can be approached on an absolute scientific/statistical basis.

Given that the applicant's Geotechnical Risk Register is based on the relative probability of the occurrence of a hazard rather than an absolute statistical assessment, the Geotechnical Risk Register should be evaluated in this context, of the basis, on which it was drawn up.

While it is desirable that the probability of the occurrence of a hazard be determined in an absolute sense, this may be very difficult to achieve in practice. In the absence of absolute probabilities, the probability rating of 1 to 5 becomes in effect an indication of perceived relative probabilities.

The applicant's response to the information requested by the Board has been to expand the Risk Register and provide justification for the Risk Ratings by

- elaborating on each hazard in the 'Hazard' column of the Risk Register
- inserting a new column, detailing the estimated P, I & R values 'Before Control' measures are put in place
- inserting a second new column, 'Justification of Probabilities chosen', to provide a justification for the original 'After Control' P and I values

The purpose of a Geotechnical Risk Register is to identify all possible geotechnical hazards and attempt to quantify the impact of a hazard. This approach in drawing on practical experience is in general more appropriate than assigning a probability of occurrence to a hazard. There exists a large collective experience of the impact of hazards, on which engineers may draw. An impact may be evaluated differently with respect to health & safety, capital costs, recurrent costs, environmental damage, etc. The R-value in the Risk Register is very often a relative rather than an absolute measure of the impact of a hazard.

The Revised Geotechnical Risk Register, as presented in Appendix 1 of the response, is a considerable improvement on the original, in that it provides P and I ratings 'Before Control' for each hazard and outlines the design and construction measures proposed to reduce the P ratings for all hazards and, where possible, to reduce the I ratings. Thus, it fulfils the essential requirements of a Geotechnical Risk Register, those of identifying geotechnical hazards and their possible impacts and then putting in place measures to reduce the probability of the hazards occurring and to mitigate possible detrimental impacts.

It is important that all parties at all stages of design and construction understand that a Geotechnical Risk Register is a dynamic instrument, which must be reviewed regularly in the light of design and construction experience.

The proposed method of Peat Stabilisation by cement/lime binder.

The Board appear to be concerned that dry deep mixing may not be as reliable a technology as sheet piling.

The EIS indicates quite clearly that the primary design strategy is based on dry deep mixing, with sheet piling being used as an additional measure at the interface between the improved and natural soil. It would be unlikely that steel sheet piling could be used without additional measures to deal with the very soft peat contained between the sheet piles. In the context of the design strategy proposed it is not reasonable to consider steel sheet piling as an alternative to dry deep mixing.

It is clear from the response of the applicant that there has been significant progress in the design process for the peat stabilisation since the date of submission of the EIS. This design process is summarized in Figure 1 of the response. From the text of the response, together with Appendices 3 & 4, it is clear that the design process has reached a stage where there is a consistent body of evidence from laboratory test mixing that dry deep mixing using an ordinary cement binder will deliver the required design strength for the stabilised peat.

The next stage of the design process will require full scale field trials, which will comprise dry deep mixing on site and a programme of testing, to include in-situ shear strength tests and laboratory tests on samples of the field stabilised peat. The purpose of the field trials will be to determine a suitable mixing methodology and an appropriate binder content, to deliver the required design strength of the stabilized soil.

The Council concurs with the applicant's response that 'Field trials have not yet been undertaken because it is considered that planning permission is required in advance of such work.' Such field trials would not fall into Class 45 of the Planning & Development Regulations 2001.

The Council views it as significant that the Swedish Geotechnical Institute (SGI), which has been long associated with the development of deep mixing technology in Europe and is recognized as a leading international authority in the area, has been and will continue to be involved in the design process. In a letter, which is included as Appendix 4 of the response, the SGI expresses the opinion that the expected strength of the stabilised soil is going to be achieved.

In summary, the present state of the design process is that dry deep mixing appears to be a feasible technology for the stabilisation of the peat. The final design will depend on the outcome of field trials. The applicant appears to have sufficient expertise on board to provide assurance that a sound final design will emerge.

It is essential that the SGI be fully involved at both the design and construction stages of dry deep mixing works.

The Environmental impact of the proposed method of Peat Stabilisation by cement/lime binder.

The environmental impact of the proposed stabilisation works was addressed in some detail by the applicant under Item 11 of its response dated 11 March 2004, to a request for further information from Mayo County Council. This earlier response, together with the present response, found partly in the main text and partly in Appendices 4 & 5, should in our view be sufficient to address the issues raised by The Board.

A containment strategy is proposed for dealing with run-off.

Based on documented evidence from the international literature and the experience of SGI (see Appendix 4, Question No. 3), the risk of leaching of contaminants from the stabilised peat is considered to be negligible by the applicant. The supporting evidence for this position appears to be satisfactory.

Roads & Transportation.

Tobin Consulting Engineers who are advising the applicant on Roads & Transportation matters have consulted with Mayo County Council. The Council is of the view that the submission by the applicant on Roads & Transportation deals adequately with the issues raised by An Bord Pleanala and the Council confirms that it is in a position to implement the one-way loop at Shramore in the event of permission being granted.

Phosphates on the terminal site.

The Council addressed this issue at a broad level, recognising that removal of phosphates from the site will be beneficial to the receiving environment. The Council is of the view that the mitigation measures proposed by the applicant, combined with the monitoring regime will ensure that the issue of phosphate levels is dealt with in the proper fashion.

Yours sincerely

P.P. M. Whelan

John Condon
County Secretary