

Our Ref: 16.GA0004 & 16.DA0004

Your Ref: SEPIL

Des Cox,
RPS Planning & Environment,
West Pier Business Campus,
Dun Laoghaire,
Co. Dublin.

2nd November 2009

Re: Onshore upstream gas pipeline facility relating to the Corrib Gas Field Project, Co. Mayo.

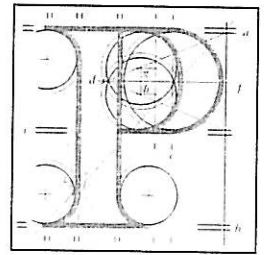
Dear Sir,

I have been asked by An Bord Pleanála to refer to the above mentioned applications.

Having considered the application made under section 182C of the Planning and Development Act 2000 as amended, the submissions received and the report of the Inspector who carried out the oral hearing, the Board considers:-

- (1) The design documentation for the pipeline and the quantified risk analysis (QRA) provided with the application does not present a complete, transparent and adequate demonstration that the pipeline does not pose an unacceptable risk to the public.
- (2) That part of the route between chainages 83+910 and 89+550 (5.64 kilometres between Glengad and Aghoos) is considered unacceptable for the following reasons:-
 - (a) the proposal to route the pipeline at a proximity distance from dwellings which is within the hazard range of the pipeline should a failure occur is unacceptable,
 - (b) the limitations on the road improvement works in the Rosspoint area resulting in a traffic plan and haul route proposal that involves convoys of five heavy goods vehicle (HGV) trucks travelling over narrow bog rampart and bog roads partly through a rural residential area which would constitute a traffic hazard and obstruction of road users, and
 - (c) the impacts on the local community during the construction and operational phases of the development which would seriously injure the residential amenities of the area and the development potential of lands in the designated rural settlement of Rosspoint.
- (3) That part of the route of the pipeline which is onshore (between chainage 83+390 and 83+400) has been omitted from the application i.e. between chainage 83+400 and the high water mark (HWM).

An Bord Pleanála



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Furthermore, the Board having examined the detailed proposals submitted and having regard to the fact that Ireland has not adopted a risk-based framework for decision-making on major hazard pipelines (transporting wet gas) and related infrastructure considers that the following standards, when applied to the proposed pipeline, are the appropriate standards against which the proposed development should be assessed and that the Board should, therefore,

- (a) adopt the UK HSE risk thresholds for assessment of the individual risk level associated with the Corrib Gas Pipeline,
individual risk level above 1×10^{-5} – intolerable,
individual risk level between 1×10^{-5} and 1×10^{-6} – tolerable if ALARP (As low as reasonably practicable) is demonstrated,
individual risk level below 1×10^{-6} broadly acceptable, and
- (b) adopt a standard for the Corrib upstream untreated gas pipeline that the routing distance for proximity to a dwelling shall not be less than the appropriate hazard distance for the pipeline in the event of a pipeline failure. The appropriate hazard distance shall be calculated for the specific pipeline proposed such that a person at that distance from the pipeline would be safe in the event of a failure of the pipeline.

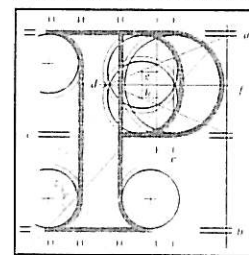
Having regard to the foregoing and to the strategic national importance and current status of the entire Corrib Gas Field development, and as it is provisionally the view of the Board that it would be appropriate to approve the proposed onshore pipeline development should alterations be made to the proposed development, you are invited to make alterations to the proposed development as follows:-

Modify the pipeline route between chainages 83+910 and 89+550 so that the route at this location would be generally in accordance with that indicated as Corridor C (that is, within Sruwaddacon Bay) in the route selection process which formed part of the Environmental Impact Statement (E.I.S.) and planning application. The revised development including this alteration shall be accompanied by a revised E.I.S. including an appropriate assessment of the impact of the development on Natura 2000 sites.

Furthermore, the applicant is requested to furnish the following further information in accordance with section 182C(5) of the Planning and Development Act, 2000 as amended in relation to the entire pipeline route modified as above:-

- (a) Clarify the code requirements and pressure test requirements for the pipeline from chainage 83+390 (HWM) approx. to chainage 83+470 (downstream weld at LVI)
- (b) Provide confirmation that the design of this section of the pipeline meets the requirements set down by the Technical Advisory Group (TAG).
- (c) Provide an integrated set of design documentation in the form of a revised Appendix Q. The documentation should integrate the analysis provided in the incidental and individual documents at the oral hearing. The whole set should provide a transparency of the design for the complete pipeline from the HWM to the terminal. This transparency should relate to the different site and design conditions along the pipeline and should relate to the codes. The design should include the analysis related to ground stability and should provide a system for monitoring movement of the pipeline in those areas of deep peat. Furthermore, the maximum allowable operating pressure (MAOP) for the pipeline should be stated.
- (d) Submit a new QRA that presents the analysis of risk at the different operating conditions and different locations along the pipeline route. The QRA should be site specific. The QRA should include ground movement and incorporate a database that matches the conditions of the proposed development. A sensitivity of the QRA is required which demonstrates the range of risk that relates to any uncertainty (in the database) of failure frequencies for the various potential

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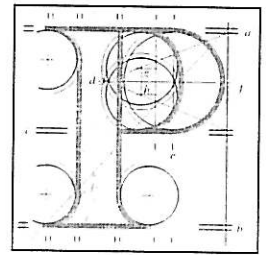
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failure modes of the pipeline. The database should be relevant for an upstream wet gas. In order to eliminate any doubt please note that all failure modes should be included including the possibility of third party intentional damage at Glengad, wet gas in the pipeline, CO2 in the pipeline and potential for Methane Hydrate in the pipeline.

- (e) Provide a qualitative assessment of risk. This should be prepared for the different operating conditions and different locations along the pipeline route and should provide a comprehensive assessment to include those events that cannot be easily defined mathematically.
- (f) Submit an analysis of the condition where the umbilical becomes severed and the control of valves at the wellhead and the subsea manifold is lost. The analysis needs to identify what conditions apply to the onshore pipeline and the risks involved in that circumstance.
- (g) An examination of the potential for pressure in the offshore pipeline to increase to wellhead pressure levels in the event that all wellhead valves had to be shut in over a prolonged period and in that period incremental leakage past the valves occurred. The concept of a vent at Glengad as a measure to protect against pressure at the wellhead side of the pipeline at the landfall rising above the maximum operating pressure should be examined. Information should also be provided on the reliability of the subsea shut down valve system proposed for the wellhead and manifold offshore.
- (h) Provide details of the examination of the potential increase in safety for the population at Glengad by the use of a straight pipe at the landfall and provide full justification for the proposed design as submitted (and any revised design that may result from the modifications requested herein).
- (i) Provide details of the hazard distances, building burn distances and escape distances in contours for the entire pipeline. The applicant should indicate the outer hazard line contour which should show the distance from the pipeline at which a person would be safe. A number of these contours were provided at the oral hearing (copies of which are attached to this letter), however, the set of hazard contours should be complete and should include the entire onshore pipeline as far as the terminal. Please indicate the assumptions made in determining these hazard contours and indicate any limitations that apply to these hazard contours.
- (j) Provide details separately of the inner zone, middle zone and outer zone contour lines for the pipeline. These shall represent the distance from the pipeline at which risk levels of 1×10^{-5} , 1×10^{-6} and 0.3×10^{-6} per kilometre of pipeline per year exist.
- (k) Provide an assessment of the societal risk for Glengad and the societal risk along the revised route. This should be fully documented.
- (l) Submit precise section by section details of the proposals for temporary peat turve storage, which take into account the condition of the existing surface layer of the peat and which specifically identify where peat turves or remoulded peat will be stored on bog mats adjacent to the stone road (or elsewhere).
- (m) Submit details of the specific risk mitigation measures that would be proposed for each of the sections within the peat lands (Sections 1 to 18 were the relevant sections in the route as originally proposed and as set out in the qualitative assessment of relative peat failure potential which was presented as additional information at the oral hearing). These details should identify in particular where there would be limits on the storage of peat on bog mats adjacent to the stone road excavation and where a conservative approach would be proposed to the use of design factors and in the assessment of peat stability.
- (n) Submit an assessment of the potential impact of the estimated stone road settlements on the umbilical pipeline and service ducts that will also be constructed within the stone road, including an assessment of the risks associated with failure due to rupture of these umbilicals or services.

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Revised drawings should be submitted which fully describe the full extent of the onshore pipeline from the HWM to the terminal site. These alterations to the extent of the site the subject of this planning application shall be accompanied by revised public notices as referred to below.

The site of the proposed development has been incorrectly detailed in the EIS between chainage 91.537 and chainage 92.539, i.e, the existing stone road at the Terminal end of the pipeline. The applicant is invited to amend the details of the proposed development at this location.

The undertaker should consider whether or not the construction of a pipeline along the altered route as referred to in this communication would require the compulsory acquisition of any lands or rights over land not covered in the application to the Board, (file ref. 16.DA0004), under Section 32 of the Gas Act 1976. In the event of an acquisition order being required for any additional land or rights over land an application for such order should be prepared under the provisions of the Gas Act 1976 and submitted to the Board in conjunction with the information requested herein. Any alterations or modifications required to the application already submitted (file ref. 16.DA0004) should be indicated. As an alternative an application for an acquisition order to cover the entire revised route may be submitted.

Please note that upon receipt and examination of any response to its request, the Board can at that stage invoke its powers pursuant to subsection (7) and (8) of Section 182C of the said Act which require the undertaker to publish a newspaper notice of the furnishing of the further information and to make same available for inspection or purchase. Any such newspaper notice would provide that written submissions or observations in relation to the further information may be made to the Board. The undertaker would also be required to send to the local authority and to each prescribed body to which notice was given of the application, a copy of the further information and E.I.S. indicating that submissions / observations may be made to the Board. You will also be requested to erect site notices at specified locations along the route.

A response to this request for further information and revised E.I.S. should be received by the Board on or before 5th February, 2010.

If you have any queries in relation to the matter please contact the undersigned officer of the Board.

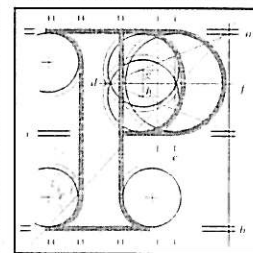
Please quote the above mentioned An Bord Pleanála reference number in any correspondence or telephone contact with the Board.

Yours faithfully,

PP Manella Dof
Alan McArdle
Executive Officer

Registered Post

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