



**Department of Communications, Energy and Natural Resources**  
**Roinn Cumarsáide, Fuinnimh agus Acmhainní Nádurtha**

Mr. Terry Nolan,  
Managing Director,  
Shell E & P Ireland Limited,  
Corrib House,  
52, Lower Leeson Street  
Dublin 2

25 February 2011

**Re: Corrib Gas Field Development Project – Addendum of Revisions to the Approved Plan of Development**

Dear Mr. Nolan,

I am directed by the Minister for Communications, Energy and Natural Resources (the “**Minister**”) to refer to the application made by Shell E & P Ireland Limited (“**SEPIL**”) acting on behalf of SEPIL, Statoil Exploration (Ireland) Limited and Vermilion Energy Ireland Limited (collectively the “**Corrib Gas Partners**”) on 31 May, 2010 requesting approval for an Addendum to the approved Plan of Development (the “**Approved POD**”) for the Corrib Gas Field Development arising from proposed modifications to the pipeline element of the development as follows:

- Modification to the route of the onshore gas pipeline;
- The incorporation of the Landfall Valve Installation at Glengad, Co. Mayo; and
- The use of spare cores in the service umbilical for the discharge of treated produced water at the Corrib subsea manifold.

and which incorporates the following documents:

1. Corrib Field Development Offshore (Field to Terminal) Environmental Impact Statement (RSK Environment Ltd):
  - (a) Offshore Field to Terminal EIS and Appendices 2001 (reprinted 2008) (the “**Offshore EIS**”); and
  - (b) Offshore Supplementary Update Report and Appendices (Rev 03), 2010 (the “**2010 Offshore Supplementary Update Report**”);
2. 2010 Corrib Onshore Pipeline Environmental Impact Statement (RPS Group) (the “**Onshore EIS**”) comprising:
  - (a) Volume 1 of 3: Corrib Onshore Pipeline Non-Technical Summary and EIS;
  - (b) Volume 2 of 3: Corrib Onshore Pipeline EIS Appendices; and
  - (c) Volume 3 of 3: Srahmore Peat Deposition Site;

(together the “**EIS**”);

- 3 Additional information (the “**Additional Information**”) submitted to the Minister for Communications, Energy and Natural Resources comprising:
  - (a) Non-Technical Summary;
  - (b) Additional Information to May 2010 Onshore Pipeline (Vol. 1);
  - (c) Geotechnical Data Package (Sruwaddacon Bay Ground Investigation Data 2010 (Vol. 1, 2 and 3); and
  - (d) Engineering Integrity Material Re: Diameter of Tunnel and Effect on the Construction Schedule of Grouting the Tunnel;
  
4. Letter from SEPIL to the Petroleum Affairs Division of the Department of Communications, Energy and Natural Resources (“**DCENR**”) dated 31 May 2010 re “Corrib Gas Field Development Project – Addendum of Revisions to the Approved Plan of Development), enclosing a Plan of Development Addendum Submission (“Corrib Field Development, Plan of Development Addendum, May 2010”) (the “**Addendum Submission**”),  
  
(together with the EIS and the Additional Information, the “**Application**”).

HAVING CONSIDERED the Application pursuant to:

- Section 13 of the Petroleum and Other Minerals Development Act, 1960, as amended by the European Communities (Environmental Impact Assessment) Regulations 1989 (S.I. No. 349 of 1989) and the European Communities (Environmental Impact Assessment) (Amendment) Regulations 1999 (S.I. No. 93 of 1999) as amended and as further amended by the European Communities (Public Participation) Regulations, 2010 (S.I. No 352 of 2010); and the Directive 2009/147/EC (the “**Birds Directive**”) and Council Directive 92/43/EC (“**Habitats Directive**”) as transposed in Ireland;
  
- Clause 6.8 of the Petroleum Lease dated 15 November 2001 between (1) the Minister for the Marine and Natural Resources (now the Minister for Communications, Energy and Natural Resources), (2) The Minister for Finance, (3) Enterprise Energy Ireland Limited (now Shell E & P Ireland Limited), (4) Statoil Exploration (Ireland) Limited and (5) Marathon International Petroleum Hibernia Limited (now Vermilion Energy Ireland Limited) (the “**Petroleum Lease**”); and
  
- Parts 6.4, 7 and 8.3 of the “Rules and Procedures Manual for Offshore Production Operations” of the DCENR.

and HAVING REGARD TO, inter alia:

- The advice of environmental consultants Environ UK with respect to whether or not the Application meets the requirements of European and Irish legislation and guidelines that give effect, in particular, to the Environmental Impact Assessment Directives, the Birds Directive and the Habitats Directive;
  
- The advice of safety and design consultants Entec UK Limited as to whether or not the developer has demonstrated that proposed construction, operation and maintenance of the pipeline meets or exceeds all relevant codes and standards and demonstrates best practice with respect to safety matters

- generally, and further demonstrates that it reduces both individual and societal risk to a level that is as low as is reasonably practicable (ALARP); and
- The advice of the Petroleum Affairs Division Technical Section as to whether or not the proposed infrastructure can deliver the appropriate volumes of gas for the lifetime of the project:

together with the submissions received as a result of:

- The public consultation process with respect to the Onshore EIS, the Offshore EIS and the 2010 Offshore Supplementary Update Report which commenced on 30 June, 2010 and concluded on 30 July, 2010; and
- The further public consultation process with respect to the Additional Information submitted by SEPIL on behalf of the Corrib Gas Partners which commenced on 9 November, 2010 and concluded on 10 December, 2010;

I am further directed by the Minister, having regard to the above and having first satisfied himself there will not be an adverse effect on the integrity of any sites protected under the Habitats Directive or the Birds Directive and then having regard to the strategic benefit of the Corrib Gas Project in terms of strengthening Ireland's energy security of supply and ensuring a direct economic return from Ireland's indigenous gas resources, to hereby convey his consent to the proposed changes to the Approved POD, subject to the conditions set out below, such consent to take effect from the date of this letter. The Approved POD as amended to include the proposed changes contained in the Addendum Submission shall be referred to in this letter as the "**Amended POD**":

Insofar as any of the conditions in the Approved POD relate to that portion of the pipeline located between the gas terminal building at Bellanaboy, Co. Mayo and the point situated at a distance of 12 nautical miles from the nearest point of the baseline (as defined in the Sea-Fisheries and Maritime Jurisdiction Act 2006), such conditions shall be revoked in respect of that section of pipeline only and replaced with the following conditions:

## **CONDITIONS**

### **General**

#### **(1) Construction in accordance with Application**

Save as modified by any of the Conditions in the Amended POD, the construction of the pipeline shall be carried out in accordance with the Application.

#### **(2) Management Plans/Procedures**

The Corrib Gas Partners shall prepare management plans/procedures to ensure that the mitigation and monitoring controls identified in the Offshore EIS, the 2010 Offshore Supplementary Update Report, the Onshore EIS and Additional Information are appropriately managed and implemented, such management plans/procedures to include all matters required by these Conditions. The

Corrib Gas Partners shall not undertake any works pursuant to the Amended POD until they agree the management plans/procedures with the Department of Communications, Energy and Natural Resources (“DCENR”).

The Corrib Gas Partners shall comply with management plans and procedures agreed with DCENR and any other plans, procedures, conditions, directions or other obligations imposed by any relevant authority, which shall include the Minister, pursuant to these Conditions.

(3) **Monitoring and Reporting**

The Corrib Gas Partners shall co-operate with any environmental, safety and design and engineering consultants appointed by DCENR to monitor and report on the works carried out under the Amended POD. The reasonable costs of any monitoring and reporting carried out by consultants appointed by DCENR shall be paid by the Corrib Gas Partners.

(4) **Consent Conditions Monitoring Committee**

A Consent Conditions Monitoring Committee shall be established by DCENR. This Committee shall monitor the implementation of the conditions attaching to the Amended POD, and anything ancillary thereto, for the duration of works under the Amended POD.

Membership of the Consent Conditions Monitoring Committee shall be determined by DCENR and shall include representatives from the Corrib Gas Partners and representatives of DCENR. Each of the Department of the Environment, Heritage and Local Government, Inland Fisheries Ireland, Mayo County Council, the Environmental Protection Agency and Bord na Mona shall be invited to nominate one representative to the Committee. Four representatives of the local community from Kilcommon Parish, selected in accordance with procedures to be determined by DCENR, in consultation with Mayo County Council, shall be invited to serve on the Committee. DCENR may co-opt additional members to the Consent Conditions Monitoring Committee at any time. The Consent Conditions Monitoring Committee may consider written submissions from the wider community as appropriate. A representative from DCENR shall chair the Committee.

DCENR may establish a framework for the payment of the reasonable costs incurred by the Consent Conditions Monitoring Committee. Such costs shall be paid by DCENR, and DCENR shall be entitled to recoup such costs from the Corrib Gas Partners.

**Environmental Conditions**

(5) **Stone Road**

Stone Road Trial Section

- i. Prior to commencement of works under the consent, the Corrib Gas Partners shall prepare a Method Statement, to the satisfaction of DCENR

which details the methods to be employed for the construction, testing and quality assurance of a stone road trial section (the “**Trial Section**”). The details must include the permeability criteria for the re-worked peat layer which is to be placed at the base of the trench to mitigate vertical water leakage. These details shall be based on the relevant measures described in the AGEC report of October 2010 titled ‘Trial Trench Section: Assessment of Hydraulic Impedance Measures Within Pipe Trench (Rev A)’. The location of the Trial Section must be clearly indicated in the Method Statement.

- ii. The Corrib Gas Partners shall provide to DCENR an interpretative report of the results of the Trial Section. The interpretative report shall include recommendations for any modification to the methodology necessary to ensure compliance with the requirements of the Method Statement. The trench works may not progress unless the findings are to the satisfaction of DCENR.

#### Construction of Stone Road

- iii. Construction of the Stone Road and storage of excavated peat along the section of the pipeline between chainages 89.355 to 89.545 shall be carried out by the Corrib Gas Partners in accordance with the methods described in Sections 7.1 and 7.4 of the Report dated October 2009 titled ‘Final Report on Reworked Peat & Mineral Soil Permeability Research – Ref: 942-233’ (the “**October 2009 Report**”), or as modified with the prior written agreement of DCENR. The reworked peat in the pipeline trench must meet the acceptable limits given in Table 7.1 of the October 2009 Report. The Corrib Gas Partners shall provide the results of testing to DCENR within one week of production.
- iv. The Corrib Gas Partners shall appoint a suitably experienced and qualified geotechnical engineer or geologist familiar with construction in peat to supervise the construction of the Stone Road (and the Trial Section). The Corrib Gas Partners shall ensure that the responsibilities of this geotechnical engineer or geologist will, at a minimum, include the roles and tasks described in Sections 7.5 and 7.6 of the October 2009 Report.
- v. No later than 90 days following completion of the pipeline trench, the Corrib Gas Partners shall submit a report to DCENR’s satisfaction that provides details of the as built design of the trench (including the depth of trench, thickness of re-worked peat, location of vertical plugs, lengths of pipeline that are below the invert level of the peat), a photographic record of relevant elements of construction, the results of testing and any other details DCENR consider necessary to assess compliance with the design parameters.
- vi. The Corrib Gas Partners shall carry out groundwater monitoring according to the method and schedule described in Section 7.7 of the October 2009 Report.

#### (6) **Archaeology & Cultural Heritage**

The Corrib Gas Partners shall ensure that archaeological surveys shall be undertaken by suitably qualified archaeologists in advance of construction

(where practicable) and during construction. A formal Chance Finds procedure will be developed prior to commencement of works under the Amended POD that includes clear guidelines for survey methods and procedures if finds are made. The Corrib Gas Partners shall prior to the commencement of works under the Amended POD, submit the procedure to the Department of the Environment, Heritage and Local Government (“**DEHLG**”) for agreement. The methods and procedures shall include the following provisions:

- Should archaeological material be found during the course of monitoring, the archaeologist may have work on the site stopped, pending a decision as to how best to deal with the archaeology;
- The Corrib Gas Partners shall be prepared to be advised by DEHLG with regard to any necessary mitigating action (e.g. preservation in situ, and/or excavation); and
- The Corrib Gas Partners shall facilitate the archaeologist in recording any material found.

The Corrib Gas Partners shall provide a report describing the results of the archaeological monitoring to DCENR and DEHLG.

(7) **Cultural Heritage**

All activities (including vehicle movements) that have the potential to cause a significant disturbance or disruption will be suspended at the Aghoos compound on Easter Sundays during periods when Mass is taking place at the nearby commemorative site unless they are agreed in advance by DCENR to be ‘essential’. The Corrib Gas Partners shall submit to DCENR the written justification for those activities considered by the Corrib Gas Partners to be ‘essential’ no later than four weeks before every Easter Sunday during the construction period.

(8) **Surface Water Management at Tunnelling Compounds**

Prior to commencement of works under the Amended POD, the Corrib Gas Partners shall prepare Surface Water Management Plans for the construction and operational phases of the tunnelling compounds. The plans shall be submitted to Mayo County Council for agreement.

(9) **Ground Improvement at Aghoos Compound**

A 0.5 metre thickness of in-situ peat will be left beneath the stone fill within the area of the Aghoos tunnelling compound, except in instances where deeper excavation is required for foundations or other structural or engineering requirements. In these instances, a 1 metre layer of low permeability re-worked peat will be placed as part of reinstatement.

(10) **Protection from Fluvial Flooding at the Glengad Compound**

Prior to commencement of works under the Amended POD, the Corrib Gas Partners shall prepare drainage controls including measures to prevent overtopping of the watercourse adjacent to the western side of the compound

at Glengad. The controls shall be submitted to Mayo County Council for agreement.

(11) **Protection from Tidal Flooding at the Landfall Valve Installation (“LVI”) and Compounds at Glengad and Aghoos**

Prior to commencement of works under the Amended POD, the Corrib Gas Partners shall prepare details of the proposed final ground levels for the operation of the LVI site and the compounds at Glengad and Aghoos. These details shall be submitted to Mayo County Council for agreement. No construction of the LVI and the compounds may commence until the agreement of Mayo County Council is obtained.

(12) **Tunnel Arisings**

The Corrib Gas Partners shall provide to DCENR for approval details of the chemical selection criteria that will be applied when selecting aggregates for the construction of the Stone Road prior to the use of such aggregates. The chemical selection criteria should have regard to the potential ecological impacts of chemical leaching from the aggregates, and the potential for the physical integrity of the aggregate to be compromised by chemical processes (e.g. dissolution of carbonates).

(13) **Bentonite Control Systems**

The detailed design of the Tunnel Boring Machine (“TBM”) shall ensure that any break-out release will be contained to around 7m<sup>3</sup>.

(14) **Oyster Farm**

In the event that the oyster farm licence (ref. T10/081) is active and there is a bentonite break-out in the vicinity of the oyster farm, the Corrib Gas Partners shall carry out monitoring of any potential for damage at the oyster farm. The Corrib Gas Partners shall promptly report the results of such monitoring to DCENR, including proposals as to how the Corrib Gas Partners will remedy any damage caused.

(15) **Workers Code of Conduct**

Prior to commencement of works under the Amended POD, the Corrib Gas Partners shall prepare and provide to DCENR a suitable workers code of conduct (“CoC”) and shall ensure contractual arrangements between the Corrib Gas Partners and its contractors provide for effective enforcement of that CoC. The Corrib Gas Partners shall ensure that the CoC is consistent with international benchmark standards equivalent to or better than International Finance Corporation Performance Standard 4 and its associated Guidance Note.

(16) **Grievance Procedure**

The Corrib Gas Partners shall prepare and submit to DCENR for agreement a public grievance procedure which must be easily accessible to the public. Prior to commencement of works under the Amended POD, the Corrib Gas Partners shall submit the procedure to DCENR for agreement.

(17) **Monitoring of Impacts on Public Transport**

As part of the monitoring programme proposed by the Corrib Gas Partners, the Corrib Gas Partners must monitor the impact (if any) of project related traffic on bus journey times along the roads affected by the project. The Corrib Gas Partners shall submit an appropriate Traffic Management Plan (“TMP”), which includes monitoring of potential impacts on bus journey times, to Mayo County Council for agreement prior to the commencement of the haulage of peat or stone. The results of that monitoring shall be presented to relevant groups to be agreed with Mayo County Council.

(18) **Air Quality and Noise Impacts during Hydrotesting and Pre-Commissioning of the Onshore Gas Pipeline**

Compressors/nitrogen generators required for hydrotesting of the onshore pipeline will be located at the Bellanaboy terminal only. No other locations may be used without the prior written consent of DCENR. In the event that other locations are required, the Corrib Gas Partners shall provide DCENR with an air quality and noise assessment.

(19) **Dust Impacts**

The management plans/procedures to be prepared under Condition (2) shall include provision for the following dust control measures:

- visual monitoring; and
- associated mitigations including wetting of surfaces and construction vehicle wheel washing.

(20) **Noise Monitoring**

A detailed noise monitoring, prevention and mitigation programme for the construction phase shall be agreed by the Corrib Gas Partners with DCENR and incorporated, as an overriding priority, within the management plans/procedures to be prepared under Condition (2).

(21) **Vibration Monitoring**

A detailed vibration monitoring, prevention and mitigation programme for the construction phase shall be agreed by the Corrib Gas Partners with DCENR and incorporated, as an overriding priority, within the management plans/procedures to be prepared under Condition (2). The vibration monitoring response strategy shall include the following action threshold criteria:

- (i) A continuous vibration of 0.5mm/s ppv at the proposed monitoring points representing dwellings closet to the route will be regarded as a 'Warning Level';
- (ii) Levels above 2.5 mm/s ppv will be regarded as an 'Action Level', and will result in the immediate application of mitigation measures; and
- (iii) An absolute upper limit to avoid any significant damage will be the 12.5 mm/s ppv.

(22) **Visual Impacts**

The visual impact mitigation measures 'recommended' in the Onshore EIS shall be adopted and included, as an overriding priority, in the management plans/procedures to be prepared under Condition (2).

(23) **Lighting Impacts**

The management plans/procedures to be prepared under Condition (2) shall include monitoring of light levels around the Aghoos compound at night and shall, inter alia, specify measures and timeframes for the implementation, as an overriding priority, of corrective actions in the event that predicted light levels outside of the compound are exceeded.

(24) **Traffic Monitoring**

The Corrib Gas Partners shall prepare appropriate monitoring mechanisms consistent with that described in Item 17 of Section 7 of the EIS Addendum. The monitoring mechanisms shall be submitted to Mayo County Council for agreement.

(25) **Intervention**

No intervention pit shall be constructed without the prior written consent of DCENR.

In the event that an intervention pit is required:

- The Corrib Gas Partners shall provide DCENR with sufficient information to consider whether the oyster licence referred to at Condition (14) is active and, if so, whether a damage impact assessment should be undertaken;
- No construction of the pit shall be allowed within the migration run seasons of the Atlantic salmon. Details of construction to be agreed with Inland Fisheries Ireland.
- The Corrib Gas Partners shall provide DCENR with detailed modelling based on the precise location/pit requirements to allow:

- Optimisation by the Corrib Gas Partners of the design of the intervention pit, including orientation of the sheet piling to minimise scour effects.
- Optimisation by the Corrib Gas Partners of the design/location of the scour protection.

**(26) Protection of Otters**

The Corrib Gas Partners shall carry out pre-construction otter surveys in accordance with an agreed survey plan before earthworks around the onshore pipeline route. The detailed survey plans must include:

- Agreed maximum time lapse between the pre-construction survey and the commencement of construction activities;
- Oversight of any construction activities likely to significantly disturb the otters shall be carried out by an independent and suitably qualified ecologist; and

The Corrib Gas Partners shall submit and agree the survey plan with DCENR and DEHLG.

The management plans/procedures to be prepared under Condition (2) shall include, as an overriding priority, protocols to be immediately followed in the event that active holts are identified. The Corrib Gas Partners shall agree these protocols with DEHLG.

**(27) Protection of Birds**

The Corrib Gas Partners shall implement the proposed mitigation measures identified in the Onshore EIS (Appendix J1, Section 6) for the protection of birds and shall comply with all relevant legislation in relation to birds (to include, without limitation, bans on disturbances in breeding seasons). In addition the Corrib Gas Partners must ensure that:

- The “intensive bird monitoring” proposed in the Onshore EIS will include monitoring of bird activity within Sruwaddacon Bay for the duration of all tunnelling activity and shall report to DCENR and DEHLG any notable response that is not highly localised and temporary. The Corrib Gas Partners shall also monitor bird responses to noise events arising from the site compounds.
- Any vegetation capable of supporting nesting birds to be removed during the bird breeding season will be checked by a qualified ecologist prior to work occurring and work in that area only allowed if no nests are found. Protocols for these surveys shall be agreed by the Corrib Gas Partners with DCENR and DEHLG.

(28) **River/Stream Crossings**

- Prior to commencement of works under the Amended POD, the Corrib Gas Partners shall submit the proposed method and timing of river/stream crossings to DEHLG and Inland Fisheries Ireland (IFI) for agreement.
- No construction of stream/river crossings may be carried out during the salmon spawning season or during high-flow periods without the prior written agreement of IFI and DCENR.

(29) **Reinstatement and Aftercare Plan**

The Corrib Gas Partners shall prepare and agree with DCENR and DEHLG a monitoring, reinstatement and aftercare plan/programme prior to commencement of works under the Amended POD. The plan/programme must include:

- survey/monitoring timetable including dates to be delivered/reported;
- scope of pre-construction surveys noted to be outstanding at time of Onshore EIS submission to be conducted immediately prior to the commencement of works;
- scope of pre-construction surveys for species such as otter, including details of the maximum time allowed between survey and construction start (see also Condition (26));
- methods of how habitats will be returned to comparable or improved status following completion of construction works and timeframes for doing so;
- details of proposed habitat enhancement measures to off-set loss of habitat at above ground locations or more permanent changes to habitat (e.g. loss of forestry, new access roads, improvements to amphibian breeding site availability, measures to off-set failed restoration if this were to occur etc);
- post construction monitoring including botanical surveillance visits and information on how early remedial action will be triggered if the reinstatement appears to be defective/failing; and
- details on the methods and criteria that will be used to judge the success of reinstatement.

(30) **Rock Placement along the Offshore Pipeline Route**

Post construction surveys shall be undertaken by the Corrib Gas Partners to identify the extent of smothering and, in the longer term, recovery of the seabed benthos and colonisation of the offshore pipeline. The results of such surveys shall be provided to DCENR at time periods notified by DCENR to the Corrib Gas Partners.

(31) **Installation of the Offshore Umbilical Line**

During the installation of the umbilical lines, the Corrib Gas Partners shall carry out monitoring. The monitoring activities will be developed and agreed in advance with DCENR and DEHLG and shall include:

- Environmental monitoring during installation including consideration of turbidity monitoring to assess the lateral effects of raised sediments during the trenching/ploughing process; and
- Shore-based noise monitoring at points representing the nearest residences during pull-in of the umbilical to ensure that day and night-time noise standards are met (with shutdown procedures in place in the event that thresholds are exceeded).

Prior to installation of the umbilical line, the precise construction method (i.e. trenching/ploughing) to be used shall be agreed by the Corrib Gas Partners with DCENR and DEHLG. The Corrib Gas Partners shall prepare and agree with DCENR a detailed method statement for this work.

(32) **Discharge of the Offshore Pipeline Hydrotest Waters**

Prior to discharge of hydrotest waters from the offshore pipeline, the Corrib Gas Partners shall:

- Ensure that relevant stakeholders e.g. fishermen be notified of the proposed discharges in advance of the discharge to allow for full dispersion before recommencement of any fishing activities in the area.
- Update computer simulation/modelling to predict when concentration will reach background levels. The scope and approach to modelling shall be agreed in advance with DCENR. Modelling will include consideration of:
  - The extent of effects of reduced dissolved oxygen around the discharge location
  - Evaluate the ranges at which ecological effects (e.g. LC-50 levels) are predicted to be exceeded.
- Ensure that monitoring during discharge of hydrotest waters is agreed with DCENR in the light of the predictive modelling.

(33) **Protection of Marine Mammals**

All relevant proposed mitigation measures relating to the protection of marine mammals (in the Offshore EIS, 2010 Offshore Supplementary report and 2010 Offshore EMP) shall be applied by the Corrib Gas Partners to the whole route where rock placement and trenching of the umbilical line is to be undertaken, and in particular the use of MMOs and associated mitigation controls for the protection of marine mammals, including their habitats.

(34) **Nautical Charts**

The Corrib Gas Partners shall ensure that the final pipeline route is confirmed by as-built surveys. The Corrib Gas Partners shall provide these details to the Department of Transport so that the location may be marked on nautical charts and to DCENR within a time period notified by DCENR to the Corrib Gas Partners.

(35) **Fisheries**

The Corrib Gas Partners shall consult with relevant fishery groups, as necessary, in relation to any proposed offshore construction and maintenance works which have been agreed with DCENR prior to commencing such works. The Corrib Gas Partners shall ensure that any fishing restriction zones required should be marked on relevant nautical charts and notified to relevant fishery organisations.

(36) **Geotechnical Risk Register**

The management plans/procedures to be prepared under Condition (2) shall include a geotechnical risk register and, at the detailed design stage, should include a detailed compilation of specific geotechnical risks.

(37) **Pollution Prevention**

The Corrib Gas Partners shall develop a full suite of necessary pollution prevention measures in the management plans/procedures that are to be agreed with DCENR under Condition (2). These shall include protection measures to prevent and control contaminant releases to air ground and surface waters.

The Corrib Gas Partners shall report any pollution incidents during construction and operation to DCENR (and other relevant competent authorities e.g. DEHLG, IFI, the Health Service Executive and Mayo County Council as necessary according to the nature of the incident).

(38) **Disturbance of Natural Habitat**

Personnel and machinery associated with the tunnelling compounds should enter and leave the compounds only through the nominated entrance/exit points and these should be situated away from the foreshore area. During tunnelling works, no activity may be carried out outside the tunnelling compounds, save in accordance with the management plans/procedures to be prepared under Condition (2).

(39) **Protection of Drinking Water Supplies**

As part of the detailed design and construction of the pipeline the Corrib Gas Partners shall demonstrate to DCENR the consideration given to the protection of the integrity of the water main to avoid any disruption to the relevant potable water supply where it is traversed by the pipeline route.

## Safety/Design Conditions

- (40) The pipeline shall be designed to at least meet the standard set by offshore pipeline code (DNV OS F101) and the onshore pipeline code IS EN 14161 (ISO 13623) (the “**Onshore Code**”). The provisions of the Onshore Code shall be supplemented by I.S. 328 and PD 8010, to the extent that their requirements are more stringent than those provided for in the Onshore Code, as detailed in the EIS.
- (41) The Corrib Gas Partners shall (and shall provide records or other documentation where appropriate to DCENR):
- (a) Ensure that the Maximum Allowable Operating Pressure (“**MAOP**”) of the offshore section of pipeline (upstream of the downstream valve on the LVI) shall be 150 barg;
  - (b) Ensure that the MAOP of the onshore section of pipeline (downstream of the downstream valve on the LVI) shall be 100 barg;
  - (c) Ensure that verification of pipeline material quality, all construction certificates and current condition shall be undertaken by an independent verification body and such verification shall be subject to audit by DCENR;
  - (d) Ensure that verification that imposed loads during construction of offshore pipeline did not exceed requirements of other design conditions shall be undertaken by an independent verification body and such verification shall be subject to audit by DCENR;
  - (e) Ensure that the beach crossing depth of cover is confirmed on installation. Such cover shall not be less than 2 metres;
  - (f) Develop an approval and verification process for field welding, including certification of welders and provide such process to DCENR for approval prior to undertaking any field welding;
  - (g) Develop a verification process for installation of concrete slab protection, oversight of this and other aspects of pipeline installation where cover or support of the pipeline changes and provide such process to DCENR for approval prior to undertaking any such works;
  - (h) Ensure that the tunnel design and construction shall adopt and comply with the International Tunnelling Insurance Group (“**ITIG**”) ‘A Code of Practice For Risk Management of Tunnel Works’, January 2006 which is based on the Joint Code of Practice for Risk Management of Tunnel Works in the UK; British Tunnelling Society; Institution of Civil Engineers; ISBN: 0-9546106-0-1;
  - (i) Ensure that the methods adopted for tunnelling should follow BS6164; Code of Practice for safety in Tunnelling in the Construction Industry;

- (j) Develop a method statement for final works in the tunnel following hydrostatic test and visual inspections to ensure that no activities take place which could lead to pipeline or coating damage and submit such method statement to DCENR for approval. In particular the method statement shall ensure that the grouting operation does not involve any movement of equipment or moving parts which could impact on the pipe or its coating. The Corrib Gas Partners shall not undertake such works until the method statement is approved;
  - (k) Provide evidence that the technical authorities responsible for Safety and Integrity have reporting lines to the corporate boards of the ultimate parent companies of the Corrib Gas Partners independent of Asset Management and Operations;
  - (l) Prior to construction of the LVI, obtain the approval of DCENR to final drainage arrangements at the LVI to ensure any surface contamination is not drained directly to the sea;
  - (m) Monitor temperature at the downstream side of the LVI confirmed as in Figure 5.1 (Appendix Q4.4). This does not refer to the period when the pipeline is not gassed.
- (42) The Corrib Gas Partners should specify the arrangements for liaison with landowners as detailed in the Advantica and TAG recommendations prior to commissioning of the pipeline, particularly with regard to ensuring no interference with the pipeline, umbilicals, markers, marking tape and cathodic protection. These arrangements shall be agreed with DCENR.

### **Engineering Integrity Conditions**

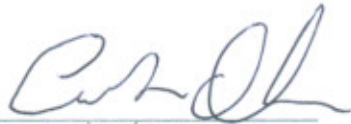
- (43) The following items will be subject to prior approval by DCENR:
- (a) specifications of the shrink sleeves to be used at onshore pipeline joints and the testing procedures for those sleeves;
  - (b) weld testing procedures for the onshore pipeline joints;
  - (c) any proposed change of use for one or more of the umbilical cores; and
  - (d) any proposed change to the operational status of the LVI.
- (44) With the exception of the section upstream of the LVI, the minimum separation between the onshore pipeline and the services umbilicals is to be 1.0 metre.
- (45) The Corrib Gas Partners shall inform DCENR in advance of the proposals for corrosion and scale inhibitor chemicals to be mixed with methanol and injected into the pipeline offshore.
- (46) A full report on pipeline flow regime calculations (as summarised in Section 5 of Appendix Q4.5 to the EIS) is to be provided to DCENR prior to Commissioning.

- (47) In order to minimise the potential for damage to the untrenched umbilical from trawl gear, the length of time between umbilical laying and trenching will be as short as possible and monitoring vessels will be used during the intervening period to warn fishing vessels approaching the area.

### **Judicial Review**

As required by the provisions of section 13A(8) (1) of the Petroleum and Other Minerals Development Act, 1960, as amended, please note that a person may question the validity of this decision by way of judicial review under Order 84 of the Rules of the Superior Courts (S.I. No.15 of 1986). Practical information on the review mechanism can be obtained from the Citizens Information Board, Ground Floor, George's Quay House, 43 Townsend St., Dublin 2.

Yours sincerely,



Ciarán Ó hÓbáin

Department of Communications, Energy and Natural Resources