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5 April 2012
Our Reference TX000028
Your Reference –

Dear Sirs

RE: DIVERSION OF GAS TRANSMISSION PIPE-LINE AT RIVER OTTER, FLUXTON, OTTERY ST MARY, DEVON (X: 309116, Y: 92764)
Infrastructure Planning (Environmental Impact Assessment) Regulations 2009
Public Gas Transporter Pipe-line Works (Environmental Impact Assessment) Regulations 1999

National Grid Gas plc, a public gas transporter, is proposing to replace a short section of gas transmission pipe-line crossing the River Otter near Fluxton, Devon, England.

In accordance with Regulation 6(1)(a) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009, we request that the Secretary of State – via the National Infrastructure Directorate of the Planning Inspectorate – adopts a screening opinion as to whether the proposed development would be likely to have significant effects on the environment by virtue of factors such as its nature, size or location.

A parallel environmental determination from the Secretary of State – via the Department for Energy and Climate Change – is also sought under Regulation 6 of the Public Gas Transporter Pipe-line Works (Environmental Impact Assessment) Regulations 1999.

This letter and enclosures set out the background and context to the proposed pipe-line diversion, and describe 1) the characteristics of the project, 2) the location of the project and 3) the characteristics of the potential impact.

Please find enclosed the following information:

- A site layout plan showing the boundary of the development, including land required temporarily during construction (drawing no. B1656500).
- A GIS shapefile identifying the land subject to the screening request.
- An Environmental Report, describing the development in detail including plans showing the physical form of the development, and explaining the environmental effects of the proposed developments and identifying mitigation measures.

Background and context

Background

National Grid is the owner, operator and developer of the majority of Britain's gas transmission system. National Grid receives gas from six coastal reception terminals around Great Britain, and transports it around the country for approximately 70 gas shippers. We transmit gas to distribution companies (including our own distribution operation), which serve industrial, commercial and domestic consumers, and power generators. National Grid's network is made up of nearly 133,000 kilometres of pipe-line, comprising high pressure national and regional transmission systems, and lower pressure local distribution systems.

The section of transmission pipe-line to be replaced is part of the Feeder 14 high pressure gas transmission pipe-line, which is one of two pipe-lines serving the South West of England, including all of Devon and Cornwall. It is therefore a vital strategic part of the national gas transmission system. The line crosses the River Otter at Fluxton, upstream of the village of Tipton St John in the district of East Devon.

The River Otter is characterised by a mobile gravel bed, which results in continual bed and bank erosion. A survey carried out in 2009 revealed that approximately 11 m of the pipe-line was 'free spanning' (i.e. the bed surrounding the pipe-line has been eroded away), and approximately half of the concrete casing in this section had been dislodged by river action. In addition to the pipe-line's own weight, the river flow and snagging of waterborne debris add stress to the pipe-line.

This risk to the pipe-line is not acceptable for safety reasons and the situation is likely to deteriorate further in the future due to continuing bed and bank erosion. In order to comply with the Pipelines Safety Regulations 1996, to ensure the safe and efficient operation of the national gas transmission network, and to secure the supply of gas to South West England, a short pipe-line diversion of approximately 260 m is proposed.

Legislative context

Prior to the coming into force of the Planning Act 2008, a pipeline diversion of this description would ordinarily constitute permitted development by virtue of Schedule 2, Part 17, Class F(a) of the Town and Country Planning (General Permitted Development) Order 1995.

However, section 20 of the Planning Act 2008 states that the construction of a pipe-line by a gas transporter will constitute a nationally significant infrastructure project (NSIP) within the meaning of section 14 of the Act if certain criteria are met, and will therefore require development consent under section 31 of the Act.

The relevant criteria are that the pipe-line must:

- be wholly or partly in England (s20(2));
- either a) be more than 800 mm in diameter and more than 40 km in length or b) be likely to have a significant effect on the environment (s20(3));
- have a design operating pressure of more than 7 bar gauge (s20(4)); and
- convey gas for supply (directly or indirectly) to at least 50,000 customers, or potential customers, of one or more gas suppliers (s20(5)).

The existing pipe-line is in England and operates at a pressure greater than 7 bar gauge and supplies a substantial portion of the gas needs of the South West, significantly in excess of the criterion set by

section 20(5). Although the diversion proposed is substantially shorter than 40 km in length, the proposed works may therefore constitute an NSIP if they are considered likely to have a significant effect on the environment.

The “construction of a pipe-line” under section 20 of the Act does not expressly include the diversion of a pipe-line and whilst we are considering the implications of this for our current project, irrespective and without prejudice, an environmental determination is in any event required under the Public Gas Transporter Pipe-line Works (Environmental Impact Assessment) Regulations 1999. Therefore, without prejudice, we are seeking a screening opinion under both sets of EIA Regulations.

Criteria for determining the need for environmental assessment

Infrastructure Planning EIA Regulations

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 state that a proposed development may be EIA development if it is defined in either one of two lists of projects in Schedule 1 (those developments which require EIA in all cases) or Schedule 2 (developments which require EIA only where they are likely to have significant effects on the environment by virtue of factors such as nature, size or location).

Schedule 1 includes ‘pipe-lines for the transport of gas ... with a diameter of more than 800 millimetres’ (Para. 16). As the proposal involves a replacement pipe-line with a length of approximately 250 m, it falls substantially short of this threshold. However, para. 16 of Schedule 2 covers gas pipe-line installations other than those included in Schedule 1. The development is therefore capable of being EIA development under these Regulations if it is considered to be likely to have a significant environmental effect.

Schedule 3 of the Infrastructure Planning EIA Regulations sets out a series of selection criteria for screening developments listed in Schedule 2. These relate to 1) characteristics of development (size, nature, extent etc.), 2) location of development (environmental sensitivity, land use, natural resources etc.) and 3) characteristics of the potential impact (extent, magnitude, complexity, probability etc.). The following sections assess the proposed development against these criteria.

Pipe-line EIA Regulations

Similar requirements apply under the Public Gas Transporter Pipe-line Works (Environmental Impact Assessment) Regulations 1999. Schedule 3, Part 2(a) states that any gas transporter pipe-line may require an Environmental Statement where it ‘will have a design operating pressure exceeding 7 bar gauge’. The development may therefore require an Environmental Statement under these Regulations if it is considered to be likely to have a significant environmental effect.

Schedule 2 of the Pipe-line EIA Regulations set out similar selection criteria to Schedule 3 of the Infrastructure Planning EIA Regulations, these being 1) characteristics of proposed pipe-line works; 2) location of proposed pipe-line works; and 3) characteristics of the potential impact. These must be taken into account by the Secretary of State in making an environmental determination.

Characteristics of the development

Description of development

The pipe-line diversion proposed would have a length of approximately 260 m and a diameter of 500 mm. It would be laid at a depth of up to 8 metres, and would be installed using Horizontal Directional Drilling (HDD).

The construction programme is expected to be 4-5 months over the summer of 2012 between May and September, in order to minimise risk of unsuitable ground conditions and flood events. The drilling works themselves would take approximately three continuous days, which can be timed to take place in dry weather to avoid flood risk.

Landscape reinstatement works such as hedgerow planting would be undertaken in the planting season following the completion of the construction works, expected to be Autumn 2012. A short 'outage' period (where the pipeline is taken out of service) on the Feeder 14 pipe-line will be required during the connection of the diverted pipe-line, during which gas supplies will be maintained through Feeder 20, which also serves the South West of England.

It is presently proposed that the section of existing pipe-line will be decommissioned in situ, to prevent environmental impacts as a result of wholesale removal. However, this situation will be kept under review in consultation with the Environment Agency.

Section 5.1 of the Environmental Report provides a more detailed description of the proposed works.

Alternatives considered

A number of alternatives have been considered in developing the pipe-line diversion proposals, with the support of stakeholders including Natural England, the Environment Agency, and East Devon District and Devon County Councils. Further information on consultation can be found in Section 4 of the Environmental Report.

Strategic options involving alternative routes were discounted at an early stage owing to the considerably greater length of 1) new pipe-line likely to be required and associated environmental disturbance and cost; and 2) existing pipe-line that would become redundant.

The detailed options appraisal process was therefore focused on the area of the existing river crossing, with a diversion north of the existing pipe-line taken forward. The options considered can be summarised as follows in Table 1:

TABLE 1: STRATEGIC OPTIONS

Option	Summary	Decision
Option 1: Do Nothing	This would involve leaving the existing pipeline in place and taking no further action. As identified originally as a need for action and underlined by subsequent fluvial geomorphological investigations, the river bed and banks are likely to continue to move and expose the pipeline further. The current situation is not acceptable in terms of increased risk pipeline safety and the risks are likely increase over time.	Option discounted
Option 2: Do Minimum	Early discussions between National Grid and the Environment Agency indicated that with the mobility of the river bed, normal remedial actions such as rock armour, concrete matting and gabions would be undermined and therefore these types of repair are not appropriate and have been ruled out. It has therefore been determined that replacement of the relevant section of pipe-line is the only viable option.	Option discounted
Option 3: Southern pipe-line diversion	A route to the south of the existing pipeline had the potential to make good use of limited flat ground on the eastern side of the river for the working area. The key issue was that the fluvial geomorphology study of the river identified this southern location as at higher risk to river alignment changes, with the potential risk that the pipeline would be exposed within its design life (40 years). The working area around the exit pit would also bring the works close to the river with potential to disturb sand martins nesting on the bank. The option was therefore not considered to be sustainable.	Option discounted
Option 4: Northern pipe-line diversion	The option to take the river crossing diversion north of the existing pipeline was identified as involving an area less likely to be subject to river movement and therefore less likely to risk exposure of the pipeline over a period at least twice the design life.	Option taken forward

Trenchless crossing techniques were considered most suitable for the pipeline river crossing with open-cut trenching limited to the connections back to the existing pipeline. An open-cut river crossing was discounted due to likely environmental impacts (disturbance, siltation etc.).

Based on the results from the geotechnical investigations, trenchless techniques suitable for the River Otter crossing were identified as:

- Micro-tunnelling
- Horizontal Directional Drilling (HDD)

Overall, the HDD option is considered to be the least vulnerable to river alignment changes to the east bank and would minimise environmental disturbance and risks, providing a more sustainable option with lower material and energy requirements. Table 2 overleaf summarises the options appraisal process.

TABLE 2: CROSSING METHODOLOGY OPTIONS

Option	Summary	Decision
Option 4a Micro-tunnelling	Able to cope with a range of geological conditions. However, it requires deep entry and exit pits with a larger working area and the high water table would require significant dewatering. Would also need temporary removal of around 20m of hedgerow provide sufficient space for the work area and access. There is a flood risk throughout the construction period and the footpath along the west bank would need to be diverted around the perimeter of the working area. While the environmental issues identified would be possible to manage and mitigate and limit to temporary impacts, this option involved greater environmental disturbance, pollution risk, materials use and cost than the alternative technology HDD.	Option discounted
Option 4b: Horizontal Directional Drilling	The technology is assessed as suitable for the geology found at the site through the ground investigations. The technique is a quicker method involving much less excavation; largely limited to the ground level exit and entry areas and tie-in trenches. There remains a possibility that deep entry pit would be required with dewatering on the east bank. The drilling period is relatively short and can be timed to be carried out within a week of low rainfall to minimise flood risk to the works. The footpath along the west bank could remain open with relatively minor disturbance to users. The working area is taken back away from the river bank and minimises temporary dormouse hedgerow loss to 7m for access. The risk of drilling mud breakout will need to be avoided through the working methods applied.	Preferred option

Finally, two options are available for the decommissioning of the section of existing pipe-line that would become redundant. It has been determined that the preferable option is to leave the pipe in situ. This situation would be kept under review. Table 3 below explains the choice of option.

TABLE 3: EXISITNG PIPE-LINE OPTIONS

Option	Summary	Decision
Option A: Remove existing pipe-line	Various options were considered for the removal of the redundant pipeline. These included cutting the ends at the bank and lifting pipe out with cranes or excavating the pipe back a little or further towards the diversion tie-in points. However, all the options risk either leaving cut open pipe ends to be exposed as the river banks erode and creating potential for increased influence on bank erosion. The pipe excavation work would also require in river works with the potential to disturb current river processes and increase vulnerability to future bank erosion. This option is not considered appropriate but will be kept under review in consultation with the Environment Agency.	Option parked
Option B: Seal the existing pipe-line and leave in situ	The geomorphology study recommended leaving the pipeline in-situ to avoid disturbing the river banks and processes. This will be kept under review in liaison with the Environment Agency. The redundant pipe would be filled with a grout which will set inside. This will avoid the pipe in the river banks filling with water as it corrodes in the future.	Option taken forward

Section 3 of the Environmental Report discusses the consideration of alternatives in further detail.

Mitigation and enhancement

Section 38 and Schedule 9 of the Electricity Act 1989 requires National Grid to do what it reasonably can when formulating relevant proposals, to mitigate potential environmental effects.

Section 5.2 of the Environmental Report sets out a series of mitigation and further work requirements, which are not repeated here. A number of areas have also been identified where there is potential for enhancement, including restricting livestock access to replanting areas, hedgerow improvements, an artificial otter holt, use of local wildflower grass mix and the removal of Himalayan Balsam.

A draft Environmental Action Plan is included with the Environmental Report at Appendix D.

Location of the development

The site is located in a rural area, characterised by agricultural land use, predominately grazing. The River Otter runs in a north-south alignment across the study area. The site is not located in a sensitive area such as a European Site (SAC/SPA), SSSI, National Park, AONB, World Heritage Site or scheduled monument. Section 2 of the Environmental Report sets out the baseline environmental information in detail, including information on the following areas: socio-economic, biodiversity, soils and geology, landscape and visual amenity, water, archaeology and cultural heritage, noise and vibration and air quality.

An Extended Phase 1 Habitat Survey Ecology Report (Appendix A), a Further Ecology Report (Appendix B) and a Fluvial Geomorphology Study Summary (Appendix C) are also included.

Characteristics of the potential impact

The main impacts associated with the proposal are discussed in detail in section 5.2 of the Environmental Report. The pipeline diversion will be buried and landscape restored to its original condition and will have no permanent environmental negative impacts in its operational phase. Several impacts will arise in the construction phase, the main impacts being:

- Impact on **dormice** as a result of the temporary loss of a short length of hedgerow. This will be subject to an application for a European Protected Species License to Natural England.
- Disturbance to **nesting birds**, which will be minimised by appropriate mitigation measures.
- **Landscape and visual** impacts from the construction site, which will be managed by suitable construction practices and tree protection techniques.
- Access to the eastern **footpath**, which will be closed during the works. An alternative route is available. A temporary footpath closure order will be sought from Devon County Council.
- Potential impacts on **aquatic ecology and fisheries**, as a result of pollution risks as a result of related spills, accidents and flood events. These issues will be subject to an application to the Environment Agency for Flood Defence Consent. Best practice environmental management will be adopted in accordance with the Pollution Prevention Guidelines.

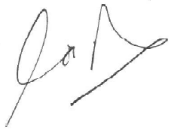
It is considered that each of the impacts and environmental risks associated with the works can be managed through the application of accepted good practice in accordance with National Grid's statutory amenity duties, and by compliance with any conditions and obligations imposed by licences and consents granted under each dedicated consent regime (protected species, flood defence etc.).

Conclusion

It is therefore our opinion that the characteristics of this project would not be likely to result in a significant environmental effect for the purposes of the EIA Regulations, by virtue either of its nature, size, location or any other factor. Checklists based on the European Commission's *Guidance on EIA Screening* are included at Appendix D to explain how this conclusion has been reached.

We therefore request that the Secretary of State adopt a screening opinion as to whether the proposed development would be likely to have significant effects on the environment by virtue of factors such as its nature, size or location. We also request an environmental determination to the same effect.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Joe Turner', written in a cursive style.

Joe Turner
Consents Officer