



ENVIRONMENTAL HEALTH & ENFORCEMENT SECTION

CONSULTATION RESPONSE IN RESPECT OF PLANNING APPLICATION

Ref No:	E/2013/0093/F
Proposal:	Temporary works of drilling exploratory borehole to approx 2700m depth to investigate underground strata for hydrocarbon exploration under DETI license PL3/10 issued to Rathlin Energy Ltd. Also to temporarily widen road into verge along 60m of Kilmahamogue Road to facilitate safe access. Also car parking, portacabin offices/welfare/workshops and 180m of 4m high perimeter earth bunds within temporary works site. Also a working and storage area of approx. 90m x 130m for cars, HGV loading/unloading, offices, drilling equipment and supplies.
Location:	49 Ballinlea Road, Ballinlea Upper, Ballycastle, Co Antrim, Northern Ireland, BT54 6NN
Date Consulted:	??????????
Date of Response:	24 th September 2013

Dear Ms O'Neill,

Further to receipt of your letter dated 14th August 2013, it is understood that Planning (NI) are currently determining under Regulation 10 of the Planning (Environmental Impact Assessment) Regulations (NI) 2012 whether an Environmental Statement is required for the proposed development.

Environmental Impact Assessment

The proposed development falls under Schedule 2, section 2(e), "*Surface industrial installations for the extraction of coal, petroleum, natural gas and ores, as well as bituminous shale – The area of development exceeds 0.5 hectare.*"

Development Control Advice Note 10 – Environmental Impact Assessment (1999) provides further advice around when a EIA would be required, "*The main considerations are likely to be the scale of development, emissions to air, discharges to water, the risk of accident and the arrangements for transporting the fuel. EIA is more likely to be required if the development is on a major scale (site*

of 10 hectares or more) or where production is expected to be substantial (e.g. more than 100,000 tonnes of petroleum per year).”

It is noted that the proposed development is for an exploratory borehole over an approximately 12 week drilling period and hence of a temporary nature. The proposed development would not be deemed of a major scale as per DCAN 10 (i.e. less than 10 hectares and significantly less than 100,000 tonnes of petroleum per year).

The specific query posed within your letter dated 14th August 2013 is, *“Please consider if you think the proposed development is likely to have significant effects on the environment.”* Moyle District Council’s Environmental Health Department (MDCEHD) at the outset wish to highlight the limited statutory remit of the Environmental Health Department and place in context the following comments.

Key Regulators for the proposed development

The Department of Communities and Local Government in GB recently published, *“Planning practice guidance for onshore oil and gas – July 2013”*. Page 6 of the guidance states, *“Who are the key regulators for hydrocarbon extraction?”*

- (a) Department of Energy and Climate Change – issues Petroleum Licences, gives consent to drill under the Licence once other permissions and approvals are in place, and have responsibility for assessing risk of and monitoring seismic activity, as well as granting consent to flaring or venting;*
- (b) Minerals Planning Authorities – grant permission for the location of any wells and wellpads, and impose conditions to ensure that the impact on the use of the land is acceptable;*
- (c) Environment Agency – protect water resources (including groundwater aquifers), ensure appropriate treatment and disposal of mining waste, emissions to air, and suitable treatment and manage and naturally occurring radioactive materials; and*
- (d) Health and Safety Executive – regulates the safety aspects of all phases of extraction, in particular responsibility for ensuring the appropriate design and construction of a well casing for any borehole”*

The Department of Energy & Climate Change also published on 30th July 2013 guidance entitled, *“About shale gas and hydraulic fracturing (fracking)”*. Page 5 of this guidance states, *“When an operator wishes to drill an exploration well ...the operator must obtain the appropriate environmental authorisation/permit from the Environment Agency in England...”*

Whilst it is accepted that the above guidance is specific to GB jurisdictions, given that the Northern Ireland Environment Agency mirrors that of the GB Environment Agency, it is presumed that similar environmental permits are required to be sought with respect to the proposed development. Planning (NI) are respectively requested to liaise with their DoENI colleagues in confirming the local legislative framework with respect to environmental permitting of the proposed development. As noted above, such environmental permits would encompass water resources protection, treatment and disposal of mining waste, emissions to air, and suitable treatment and manage and naturally occurring radioactive materials.

Likewise, page 16 of this guidance states, “*Who is responsible for ensuring public safety in the vicinity of fracking sites and how is the managed? The well (borehole) site operator is responsible for ensuring public safety within, and in the direct vicinity of, the work activities. The HSE is responsible for regulating this requirement.*”

Given that the Health and Safety Executive Northern Ireland mirrors that of the GB Health and Safety Executive, it is again presumed that similar regulatory responsibilities lie with the HSENI. Planning (NI) are respectively requested to liaise with the HSENI in confirming the local legislative framework with respect to health and safety associated with the proposed development.

As specific expertise relevant to the proposed development for both health and safety and environmental impacts lie with the HSENI and NIEA respectively, it would be inappropriate for MDCEHD to provide comment where they are not the primary regulator. MDCEHD do hold sufficient expertise with respect to noise, artificial light and air quality impacts (albeit on a macro level as opposed to transient fugitive emissions impacting on the health of local residents) and hence are content to provide comment on such impacts even though such impacts should also be considered under the primary statutory provisions available to the HSENI and the NIEA.

Noise impact assessment

A noise impact assessment entitled, “*Proposed drilling rig at 49 Ballinlea Road, Ballycastle – Noise impact assessment*” dated 13th June 2013 has been submitted in support of the proposed development.

Page 3 of the noise impact assessment states, “*The construction activities will take place only during normal daytime hours (i.e. Monday – Friday 08.00 – 18.00, Saturday 08.00 – 13.00).*” However, page 17 of the Operations Summary report notes construction hours will be Monday – Friday 07.00 – 18.00, Saturday 07.00 – 18.00. The applicant is therefore requested to confirm which set of construction hours is correct.

The noise impact assessment has made reference to a number of noise standards/guidelines including BS8233:1999 Sound Insulation and Noise Reduction for Buildings – Code of Practice, BS5228:2009 Noise and Vibration Control on Construction and Open Sites and the World Health Organisation Guidelines for Community Noise (1999). It is noted that the acoustic consultant has not made reference to BS4142:1997 Method for rating industrial noise affecting mixed residential and industrial areas, presumably due to the temporary nature of the proposed development. It should be highlighted that if the site is deemed to be commercially productive and a further application is lodged, MDCEHD would be requesting that noise limits are derived using BS4142 due to the prolonged nature of commercial production. The low background noise level of the locality, especially at night, would result in noise limits significantly lower than those currently suggested with respect to the temporary exploration application.

Page 5 of the noise impact assessment in making reference to the WHO 1999 guidelines states, “*...if the noise is not continuous, then the internal level required to prevent negative effects on sleep is a $L_{Amax,fast}$ of 45dB. Therefore, for sleep disturbance, the continuous level as well as the number of noisy events should be considered.*” It is noted that the noise impact assessment provides no comment with respect to likely L_{Amax} levels from the proposed development.

Page 6 of the noise impact assessment notes that the proposed drilling rig for the site is a KCA/Deutag T61 with an associated sound power level of 101 dB(A)... ‘*this has been used as the sound power level for the rig in the noise model included in this assessment*’. However, it should

be highlighted that page 21 of the Operations Summary report notes that, “*whilst this drilling rig has been identified as being suitable for the operation, it may not be the one used to drill the well.*” Therefore, unless suitably conditioned, there is the potential for a drilling rig to be mobilised with a sound power level greater than that used within the noise impact assessment.

Page 11 of the noise impact assessment lists the predicted worst case construction noise levels at the nearest properties surrounding the proposed development. It is noted that for a number of properties the daytime construction noise limits of 55 – 65 dB are exceeded. As such the acoustic consultancy within section 5.1 of the noise impact assessment has listed a number of mitigation measures to reduce the noise impact from construction activities. However, it is noted that no further predictions are provided to confirm whether or not the daytime construction noise limits of 55 – 65 dB can be achieved in practice.

Page 15 of the noise impact assessment states, “*it is recommended that noise monitoring is undertaken at the nearest noise sensitive properties during the drilling phase...*”. Due to the potential for construction noise to exceed the daytime construction noise limits, MDCEHD recommend that noise monitoring be extended to cover the lifespan of the proposed development from construction to demobilisation.

Light impact assessment

The nearest residence to the proposed development is located approximately 73m from the boundary of the site. As the proposed development will operate 24 hrs per day during the drilling stage, there is likely to be significant levels of associated artificial light.

Artificial light if not appropriately controlled can cause a loss to the amenity of neighbouring residents. Recently, the Department of Communities and Local Government published guidance with respect to Light Pollution and planning via the National Planning Practice Guidance on-line resource. Given the dearth of local planning guidance with respect to light pollution, MDCEHD are reliant on the direction and advice provided by the GB guidance.

Pertinent sections of the GB guidance state, *Lighting schemes can be costly and difficult to change, so getting the design right and setting [appropriate conditions at the planning stage](#) is important. Light intrusion occurs when the light ‘spills’ beyond the boundary of the area being lit. For example, light spill can impair sleeping, cause annoyance to people, compromise an existing dark landscape and/or affect natural systems (e.g. plants, animals, insects, aquatic life). It can usually be completely avoided with careful lamp design selection and positioning:*

- *Lighting near or above the horizontal is usually to be avoided to reduce glare and sky glow (the brightening of the night sky).*
- *Good design, correct installation and ongoing maintenance are essential to the effectiveness of lighting schemes.*

Common causes of complaints to local authorities are about domestic, shop or office exterior security lights, illuminated advertising and flood lighting, so these installations may require particular attention.

Considering how much light shines includes an assessment of the quantitative and spectral attributes of the lighting scheme (e.g. light source and performance levels) and whether it exceeds the levels required to fulfil its intended purpose. The character of the area and the surrounding environment may affect what will be considered an appropriate level of lighting for a development.

Glare should be avoided, particularly for safety reasons. This is the uncomfortable brightness of a light source due to the excessive contrast between bright and dark areas in the field of view. Consequently, the perceived glare depends on the brightness of the background against which it is viewed. It is affected by the quantity and directional attributes of the source.

Taking the above into consideration, given the intrinsically dark nature of the locality and the fact that floodlights are to be installed as part of the proposed development, MDCEHD recommend that the applicant undertake an artificial light impact assessment. Such an assessment should include:

- Measure the existing/background light levels experienced at neighbouring properties at times when the proposed floodlighting would be operational.
- Predict the vertical light levels (1m AGL) experienced at neighbouring properties at times when the proposed floodlighting will be operational.
- Compare the predicted light levels against guidelines contained within the Institution of Lighting Professionals – Guidance notes for the reduction of obtrusive light.
- Provide comment with respect to any direct line of sight from neighbouring residents windows and the light source (e.g. consider issues with respect to potential glare)
- Suggest suitable mitigation measures, if necessary (e.g. cowls, shields, angling, double asymmetric luminaire etc.)

Until such times that the applicant has provided such information, MDCEHD are not in an informed position to provide comment with respect to the potential impacts from the proposed development.

Air quality impact assessment

An air quality impact assessment entitled, “*Air quality impact assessment – Rathlin Energy Ballinlea Petroleum Exploration*” dated 14th June 2013 has been submitted in support of the application.

It is noted that the air quality impact assessment assesses the macro air quality impacts against statutory UK air quality objectives. It should be highlighted that the UK Air Quality Objectives are principally based on annual, daily or 8-hour means and hence would not appropriately capture any transient impacts from fugitive emissions from the drilling operations.

Local residents have raised concerns with respect to potential health impacts from these fugitive emissions. Given that such fugitive emissions (e.g. methane, BTEX, VOCs etc.) should be considered via the environmental permitting and health and safety regimes (regulated by the NIEA and HSENI respectively) and such expertise is held elsewhere, MDCEHD will not provide any further comment.

Whilst the air quality impact assessment predicts that the UK Air Quality Objectives will be achieved, it would appear that emissions from the gas flare have not been considered. Page 30 of the Operations Summary report states, “*In the event of gas being discovered, well test equipment will be mobilised to site...Equipment required to complete these tests will include a wireline truck and flare stack. Gas will be flowed to surface through the tubing, pipework and separator. Any gas will be burnt through a flare. Gas is likely to be flared for up to 7 days. The well would then be shut in for a short period before the well is either flared again or suspended.*”

The applicant is therefore requested to review the air quality impact assessment to also take into consideration air quality impacts associated with the gas flare.

Conclusion

As specific expertise relevant to the proposed development for both health and safety and environmental impacts lie with the HSENI and NIEA respectively, it would be inappropriate for MDCEHD to provide comment where they are not the primary regulator. MDCEHD do hold sufficient expertise with respect to noise, artificial light and macro air quality impacts and have raised a number of matters that require further clarification by the applicant.

Issued on behalf of

Environmental Health Department
Moyle District Council