

Denbighshire County Council

Date: 18 August 2023

RE: 01/2022/0523 PROPOSED EXTENSION AT GRAIG QUARRY, GRAIG ROAD, DENBIGH – REVISED AIR QUALITY IMPACTS ASSESSMENT TECHNICAL APPRAISAL

Introduction

Enzygo has carried out a technical appraisal of a revised air quality assessment for the proposed extension at Graig Quarry.

Following Enzygo's comments on the initial Environmental Statement (ES) chapter (Enzygo Ref. MAN.836.001.AQ.TL.002) a revised assessment has been submitted.

This Technical Note is provided by Conal Kearney (MSc, BEng, MIAQM, MIEEnvSc), Director of Air Quality at Enzygo Limited. Conal is a Member of the Institute of Air Quality Management (MIAQM) and Institute of Environmental Science (MIEEnvSc) and has over 25 years' experience in the air quality sector including within consultancy, local authorities (including a minerals and waste county authority) and the Environment Agency. His role includes the production and project management of Air Quality Assessments and providing expert witness evidence in support of planning applications.

Critical Appraisal of Updated Dust Impact Assessment

This critical appraisal has been undertaken of the Dust Impact Assessment undertaken by SLR referenced 425.064845.00001 dated 14 July 2023. Our comments relate to areas of the assessment where we consider further information or confirmation is required.

Methodology

Similar to the ES Chapter, the methodology for the air quality assessment is based on the Institute of Air Quality Management (IAQM) 2016 document 'Guidance on the Assessment of Mineral Dust Impacts for Planning'. It is agreed that this is the most appropriate methodology to use to assess the impacts from the proposals.

This method uses a qualitative source-pathway-receiver approach for dust impacts which requires the use of professional judgement to define the magnitude of potential dust sources, effectiveness of the pathway and sensitivity of receptors.

The assessment has considered a wider scope of receptor locations as advised in our appraisal of the ES and included locations to the east of the quarry.

Particulate health impacts were correctly screened based on background concentrations.

Assessment

Dust Sources

The assessment used IAQM guidance to separately consider residual dust source emission magnitudes from various activity types taking into account built in mitigation. Similar to the ES, the revised assessment considered that the maximum magnitude is 'medium' for extraction, processing, exposed surfaces and on-site transport. Further justification for this based on existing or proposed mitigations has been provided. This includes reference to a 'Blasting Impact Management Protocol'.

Subject to sufficient and agreed mitigation measures being implemented it is agreed that the emission magnitudes specified can be achieved.

Pathway

The revised assessment has used 5 years' meteorological data taken from the nearest and most representative location at Rhyl as advised in our appraisal of the ES. The assessment has considered the distance of receptors from nearest working areas to provide a robust assessment. As such, the assessment of pathway effectiveness is accepted.

Receptors

The assessment has considered the most sensitive residential and ecological receptors in the area for activities on the proposed extension area and has considered further receptors within 400 m of all dust generating activities including those on the Colomendy Industrial Estate (Bimeda).

Impacts

The revised assessment considers that residual impacts assuming the implementation of best practice mitigation measures, including those for blasting would be negligible and the overall effect 'not significant'. This is accepted subject to agreed planning conditions on dust management.

Human Health Impacts

Further information has been provided on site boundary PM₁₀ and PM_{2.5} monitoring in 2021. The results provide further evidence that current health based air quality objectives are achieved in the vicinity of the site. However, given the nature of the activities and proposed more stringent PM_{2.5} targets, it is recommended that monitoring is continued periodically.

Third Party Comments

Bimeda Comments (26th July 2022)

The revised assessment considers impacts from all minerals activities on its site and given suitable control measures impacts would be not significant.

Environmental Public Health Service Wales Comments (7 July 2022)

The background PM concentrations provided in the assessment indicate that human health impacts can be screened out as insignificant and that further detailed assessment of this is not required.

Similarly there would not be an increase in road traffic above negligible thresholds and no further assessment is required.

Conclusions

The methodology and conclusions of the revised dust impact assessment are accepted. However this is subject to the implementation of best practice dust control measures throughout the site and with a particular focus on blasting operations. These measures should be provided by means of planning condition requiring an agreed dust management plan and monitoring strategy.

We trust that the above is clear. If you have any queries or comments, please do not hesitate to contact me on 07904 496233.

Yours sincerely,



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Enzygo Ltd