



UK Health Security Agency

Environmental Hazards and Emergencies
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Our Ref: CIRIS #64401

Your Ref: LCC/2023/0030

Development Management
Lancashire County Council

1 November 2023

Dear Development Management,

Planning Application for: Bourbles Quarry
Land off Bourbles Lane, Nr Preesall, Lancashire

Thank you for forwarding a copy of this consultation to the UK Health Security Agency (UKHSA).

It is understood that the planning application is for a sand and gravel quarry; the Local Authority Development Management has consulted UKHSA requesting a review of the application in relation to impacts on local residents. The application identifies that there are residential receptors within 100 meters of proposed quarry workings and processing areas.

Having reviewed the application, UKHSA notes the following:

- Quarry operations are likely to give rise to some dust and respirable particulate emissions; the applicant has followed both planning and professional guidance in assessing the significance of these. Nearby receptors have been identified by the applicant and are accounted for in the assessment. Nuisance dust emissions have a range of anticipated outcomes, the most significant of which is assessed as 'slight' to 'moderate adverse outcomes' according to IAQM¹ guidance. Although not directly quantifiable, these level of impacts are based on dust events occurring ~22 times / year with the magnitude of any release and subsequent exposure being dependant on receptor distance and orientation from any releases. Additional dust abatement methods via working practices are available to the operator if required.

¹ Guidance on Land-Use Planning and Development Control: Planning for Air Quality: Environmental Protection UK and IAQM, January 2017.

- Assessment of respirable particulate matter as a fraction of total dust, notes that the smaller <10µm material is most likely to be wind dispersed over a greater area. Background levels of particulate matter are well below the relevant air quality standards and although the applicant does note that an increase in particulate concentrations is considered likely, levels will remain well below the relevant Air Quality Standards (AQS). The position of the UKHSA is that air pollutants are non-threshold and population health impacts may occur from changes in pollution concentrations even below the AQS. However, the applicant notes that the National Planning Policy Framework assessment methodology only considers that increasing levels of particulate greater than the AQS would justify refusal of planning permission.
- Traffic movements, particularly HGVs associated with the development are assessed with regard to their impact on air pollutant levels and no significant impacts are considered likely. This includes impacts on an Air Quality Management Area associated with traffic pollution.
- An assessment of potential impacts from Respirable Crystalline Silica (RCS) on external receptors has been provided and cites the Health and Safety Executive in stating that silicosis (caused by exposure to dust containing crystalline silica) has only been observed in workers from quarry or foundry industries, and that the lack of cases in the wider public in the UK suggests that environmental exposures to silica dust are not at levels that would lead to silicosis. The applicant further notes that occupational controls and monitoring to limit RCS generation or exposure will be in place as part of quarry operations and protection of employee health should also protect off-site receptors.

It should be noted that a range of occupational health standards for RCS do exist in both the UK and other countries, including the US Occupational Safety & Health Administration and the EU Scientific Committee on Occupational Exposure Limits. The most recent HSE workplace exposure limits classify RCS as carcinogenic and effectively a non-threshold substance with no 'safe' exposure level. Controls to minimise RCS releases and off-site impacts should be reviewed given that sand – a potential source of RCS will be a proportion of the material removed during quarrying.

- Both the RCS risk and wider potential for dust and particulate releases are referenced as subject to regulatory oversight and control; the extent to which effective regulation can be seen as a control mechanism rather than a review mechanism should be considered when this approach is evaluated. An Environmental Permit will likely be required for site operations and this may be a Local Authority or Environment Agency led process according to scale. It is likely that the Planning and Environmental Permit

regulatory footprints will not directly overlap and care should be taken to ensure that all potential emission sources are adequately addressed.

Yours sincerely

Jamie Bond
Principal Environmental Public Health Scientist