

Consultation Response from: KC Environmental Health (Pollution & Noise Control)		
2023/91280 - Bromley Farm Quarry, Barnsley Road, Upper Cumberworth, Huddersfield, HD8 8PD		
Quarrying operations for the extraction of clay, shale and incidental coal and subsequent restoration by means of importation of inert wastes		
Date Responded: 6th July 2023	Responding Officers: RM NH MN	Responding Ref: WK/202318499
The application seeks permission for the extension of the existing quarry for the extraction of clay, shale and incidental coal and the subsequent restoration by means of importation of inert wastes. The site is allocated as an accepted area for mineral extraction, Ref MAS3 in the adopted Kirklees Local plan. The reserves have been calculated to be circa 760,000 tonnes equating to around 25 years supply at approximately 30,000 tonnes per annum, with extraction taking place between April and September. The extension area is to be worked from west to east in five 30m wide cuts to a depth of 16m. All workings are to be taken off site for processing at Crow Edge and there is not expected to be any fixed plant operational in the quarry. The total volume of waste required for restoration is expected to be approximately 380,000 m³. Air Quality An Air Quality and Dust Assessment by Miller Goodall (ref:102882) (dated: 17th January 2023) has been submitted in support of the application. It assesses the potential changes in air quality arising from vehicle and fugitive dust emissions during the operational phase, and the potential impact this will have on local air quality. An assessment of fugitive dust emissions and particulate matter has been completed for each of the five operational phases including restoration. This has been undertaken in accordance with the source- pathway- receptor methodology as recommended by the Institute of Air Quality Management (IAQM) for the assessment of mineral dust. The assessment includes the potential impact on sensitive receptors that will be down-wind of dust-generating operations. According to the IAQM guidance dust from mineral operations is referred to as disamenity dust and is generally coarser visible dust. An assessment of dust is required if there are sensitive receptors within 250m of a soft-rock quarry or 400m of a hard-rock quarry. In total there are five sensitive receptors located within 250m of the quarry extension. As the extension of the quarry is a continuation of existing activities on the site, there is no change in vehicle movements, therefore vehicle emissions from HGVs remain unchanged. Consequently, an assessment of vehicle emissions was scoped out of the report and was “concluded as not significant”. As there are no monitoring locations in the vicinity of the proposed development, background PM10 concentrations were obtained from Defra’s background concentration maps. In addition, local weather conditions were taken from Emley Moor met station from 2019 – 2021. To assess disamenity dust using the source- pathway- receptor methodology, the main activities and source of dust was identified based on the following: • site preparation/restoration • mineral extraction		

- material handling
- on- and off-site transportation (haul roads, site access routes, public highway road network)
- mineral processing (e.g. mobile screening plant) and
- stockpiling/exposed surfaces.

The pathway effectiveness considers time sensitive receptors that may be exposed to dust emissions from each source and in each phase of the operation, based on semi-quantitative meteorological conditions, including operating hours. The operating hours are to remain the same as the existing quarry.

The report concludes there are negligible and not significant effects at five existing dust-sensitive receptors located within 250m from the quarry extension, and that there is minimal risk of PM10 impacts. The report goes on to state that the existing dust management plan “that is used for Bromley Farm Quarry is considered suitable and sufficient to control dust generation”, and that this document will be updated to “reflect the new working location”. In addition, the reduced working schedule March to September will also lower the overall risk associated with dust generation, and as the phases progress, the activities will move further away from sensitive receptors.

Comment

We agree with the approach and methodology of the Air Quality and Dust Assessment by Miller Goodall (ref:102882) (dated: 17th January 2023) and accept the conclusion. We noted that in paras 1.1 and 6.1.2 that reference has been made to Grantham and we would like confirmation that this is a typographical error.

Dust Management Plan

A Dust Management Plan (DMP) by Silkstone Environmental Ltd (dated: January 2023) has been submitted in Appendix D of the Air Quality and Dust Assessment by Miller Goodall (ref:102882) (dated: 17th January 2023).

The Dust Management Plan provides a summary of operations at the extension site, and sets out the measures to control, mitigate and measure dust emissions throughout the lifetime of the operations to prevent loss of amenity to nearby sensitive receptors. The report states that in the unlikely event that complaints are made regarding dust nuisance during the extractive operations, then dust monitoring in agreement with the EHO will be undertaken using sticky pad samplers for the duration of the quarrying operations. All dust management and monitoring procedures will be recorded and kept at the site office and made available to Kirklees Council as required. The Site Manager is to be responsible for addressing all complaints and notifying Kirklees Council accordingly. Water bowsers are to be available at all times to wet haulage roads as necessary.

Monitoring data from the site will be compared to baseline monitoring data, weather information, site activities during the assessment period, and with reference to changes in local and national air quality guidance. The type and extent of dust monitoring that takes place following such a review will be decided following consultation between the site operator and Kirklees Council.

The DMP is to be reviewed and revised throughout the working life of the site until restoration

is complete.

Finally, Tables 1-3 in Appendix A of the DMP outlines the maintenance, procedural and monitoring items and the frequencies by which they are to be undertaken.

Comment

We agree with the Dust Management Plan (DMP) by Silkstone Environmental Ltd (dated: January 2023) and recommend a condition to secure its implementation.

Contaminated Land

Our records identified the proposed development site is on potentially contaminated land (our references: 38/23) and is within 250m of several historic landfill sites. A Phase 1 Preliminary Geo-Environmental Risk Assessment prepared by Silkstone Environmental Ltd dated 23rd January 2023 (ref: 22007/P1/0) has been received in support of the application. The report includes geotechnical information, which is outside the remit of Environmental Health, this consultation response therefore only relates to the land contamination aspects of the documents.

The report advises the site is within a rural area adjacent to the restored Bromley Farm Quarry and the client intends to extract brickshale and fireclay from the proposed development site. The site is currently grassed fields and East Hill Beck can be found in the easternmost part of the site. The only property adjacent to the site is Lane Side Farm, located on Cumberworth Lane to the northwest. During the site walkover, no visual or olfactory evidence of contamination was identified.

Several sources have been used by Silkstone Environmental to establish the historical land uses of the site and surrounding area. The adjacent land has been associated with quarrying, and the storage of spoil and mining activities. Other significant industrial activities on-site and within 250m include, landfill activities (on site, adjoining the site and to the east and southeast), unspecified ground workings, a railway tunnel and sidings. More details on the landfill activities onsite and in the surrounding area in provided Section 2.11 of the report. The underlying geology is described as worked ground, boulder clay and Pennine Lower Coal Measures. The report advises that the site is within Development High Risk Area in terms of the coal mining legacy and is affected by recorded and unrecorded shallow mine workings in the Cumberworth Thick and Cumberworth Thin coal seams. These seams also outcrop on the site. Notably, a known mine shaft exists on site and also adjacent to the site.

In Section 2.6 of the report, the potential risks associated with coal mining are expanded. It is acknowledged that there are on-site coal mining legacy issues with the site however, the report adds that as the client intended to extract fireclay and brickshale from the mudstone horizons below the Cumberworth Thick and Cumberworth Thin coal seams. As a result, it is reported that all mine workings in these seams will be removed as part of the operational process, thereby negating the risk.

A preliminary conceptual model is presented in Table 15 of the report where several potential pollutant linkages have been identified and an overall low to moderate risk has been attributed for the site. The report concludes that a Phase 2 investigation is necessary and should include soil sampling, ground water monitoring and sampling, surface water sampling and ground gas monitoring. For ground gas monitoring the report is specific in recommending

monitoring at two weekly intervals until the completion of 6 visits and states that the programme must include a minimum of 2 visits under optimal monitoring conditions of low and falling atmospheric pressure.

We are generally satisfied with the report provided. The site is on historic landfill and considering the potential pollutant linkages identified, we require the applicant to provide the results of the site investigation with the submission of a Phase 2 Investigation Report **before the application is determined**. We withhold all other contaminated land comments until further notice.

Noise

A Noise Assessment by Silkstone Environmental Ltd (dated: January 2023) has been submitted which details the typical operations which may lead to noise impacting upon the nearest noise sensitive receptors (NSRs).

A background noise survey was conducted on the 14th of April 2022 and it is noted that there was no activity on the former Bromley Farm Quarry as the site was fully restored. Three NSRs were identified in the surrounding area of the proposed quarry (as shown on plan no 21007/200 in Appendix A) as follows -

- 62 Cumberworth Lane
- Lane Side Farm
- 43 Cumberworth Lane

A summary of the findings at each NSR is shown in table 3 and modelling was conducted based on these findings using data from BS 5228-1:2009+A1:2014 for the plant and machinery to be used on site. The model was based on operational details provided by the applicant for the type, number, and location of plant, operational periods, and HGV movements and these are reflected in table 3 (which should be labelled table 4).

Four scenarios were modelled showing soil stripping and mineral extraction as follows -

- 1) Plans 1 and 2 – Soil Stripping and bund construction
- 2) Plans 3 and 4 – Overburden mound construction
- 3) Plans 5 and 6 – Mineral extraction in Cut 1
- 4) Plans 7 and 8 – Mineral extraction in Cut 3
- 5) Plans 9 and 10 – Mineral extraction in Cut 5
- 6) Plans 11 and 12 – Restoration by waste importation

Based upon assumptions and worst case scenarios as stated in para 8.2, the predicted noise levels are shown in tables 5.1 through to 5.6. Reference is made to the Minerals Planning Practice Guidance to the NPPF which states “*Mineral planning authorities should aim to establish a noise limit, through a planning condition, at the noise-sensitive property that does not exceed the background noise level ($L_{A90,1h}$) by more than 10dB(A) during normal working hours (0700-1900)*”. All of the tables show the noise levels will meet with this limit and are therefore acceptable to all of the nearest NSRs.

The findings of the submitted report are accepted. However, it is unclear if any mobile crushing plant is to be used as this is not referred to in the submitted noise assessment. The

applicant is advised to state this as a further/addendum report will be necessary if any mobile crushing plant or other equipment is to be used.

Recommended Conditions

DMP Condition

The site shall only be operated in accordance with the Dust Management Plan (DMP) by Silkstone Environmental Ltd (dated: January 2023) submitted in Appendix D of the Air Quality and Dust Assessment by Miller Goodall (ref:102882) (dated: 17th January 2023).

Reason: To safeguard the amenities of nearby residents and to accord with Unitary Development Plan Policy WD5 and Sections 11 and 13 of the National Planning Policy Framework

HUC1 Hours of Use - Condition

The premises, shall not be open for business including deliveries to or dispatches from the premises, outside the hours of -

- 0700hrs to 1800hrs Monday to Friday and
- 0730hrs to 1300hrs Saturdays

No activities shall take place on Sundays or Bank Holidays

Reason: To ensure that the proposed use(s) does not give rise to the loss of amenity to nearby residential properties, by reason of noise or disturbance at unsociable hours, to accord with the aims of Policies LP24 and LP52 of the Kirklees Local Plan and Chapters 12 and 15 of the National Planning Policy Framework.

NQ1 Daytime Operations

Any daytime (0700-1900) operational noise shall not exceed the background noise level ($L_{A90,1h}$) by more than 10dB(A) during normal working hours when measured at any noise-sensitive property. Where it will be difficult not to exceed the background level by more than 10dB(A) without imposing unreasonable burdens on the mineral operator, the limit set should be as near that level as practicable. In any event, the total noise from the operations should not exceed 55dB(A) $L_{Aeq, 1h}$ (free field).'

Reason: To ensure the proposed development does not cause harmful noise pollution within neighbouring noise sensitive locations, in the interest of amenity, to comply with the aims and objectives of Policies LP24 and LP52 of the Kirklees Local Plan and Chapters 12 and 15 of the National Planning Policy Framework.

NQ4 Temporary Operations

Any operational noise produced by temporary operations shall not exceed 70dB $L_{Aeq(1hr)}$ for up to 8 weeks in any 52 week period when measured at any noise sensitive property.

Reason: To ensure the proposed development does not cause harmful noise pollution within neighbouring noise sensitive locations, in the interest of amenity, to comply with the aims and objectives of Policies LP24 and LP52 of the Kirklees Local Plan and Chapters 12 and 15 of the National Planning Policy Framework.