Consultation Response from: KC Environmental Health (Pollution & Noise Control)		
2023/90668 - Grange Moor Coachworks, Barnsley Road, Grange Moor, Huddersfield, WF4 4DR		
Demolition of existing buildings. Erection and operation of a single building comprising a Sui Generis land use limited to the purpose of storage, assembly, sale and distribution of custom-built computers, laptops and their components as well as any associated development (those being a replacement wind turbine, utility provision, drainage, access, hard and soft landscaping) within the red-line boundary alongside business operations pursuant to the effective administration of the Sui Generis use.		
Date Responded: **27th March 2024**	**Responding Officer:** **NH**	**Responding Ref:** **WK/202406911**

Contaminated Land

In our response dated 4th April 2023, we reviewed and accepted a Phase 1 Environmental Desk & Study authored by Rogers Geotechnical Services, dated 16th January 2022 (ref: C3224/22/E/4914) received in support of the application. However, we found the contaminated land information to be insufficient given the identified potential pollutant linkages. Consequently, we recommended the submission of additional contaminated land information before we could provide additional comments.

Since then, we have received, a Phase 2 Geo-Environmental & Mining Report authored by Rogers Geotechnical Services, on 20th February 2024 (ref: C322422/E/4914). The report includes geotechnical information, which is outside the remit of Environmental Health, this consultation response therefore only relates to the land contamination aspect of the report.

The report outlines findings from fieldwork conducted between 30th January and 11th October 2023. This included twelve windowless sample boreholes, twelve rotary boreholes, and installation of six gas monitoring standpipes. Soil samples were also retrieved for chemical analysis.

The site comprises two areas: a higher elevated area used for plant storage and a lower area with fields. A backfilled quarry exists within the fields where WS12 and R12 were located. Key findings include the presence of made ground in both elevations. No coal or illicit workings were found in the upper elevation. In the lower elevation, no intact coal was found, but a 1m void was discovered between 21m and 22m at R10. This was believed to represent coal workings in the Third Brown Metal or Middleton Little Coal seam. A possible void was noted at R12 between 4m and 8m, considered poorly backfilled made ground associated with the landfill in this area, rather than coal workings.

During drilling, gas detectors were triggered on two occasions in the location of R01 and R03 within the garage workshop. Additionally, one of the gas detectors was also triggered on a day when no drilling occurred. Rogers Geotechnical Services (RGS) consider this to be triggered by the accumulation of exhaust fumes as opposed to the migration of mine gases. The gas detectors installed within the commercial premises were removed once the drilling was completed and all boreholes fully sealed.

Gas monitoring in the standpipes was undertaken between 14th February and 22nd May

2023 on 10 occasions over rising and falling barometric pressure. Peak methane and carbon dioxide concentrations were 53.8% v/v and 11.4% v/v respectively. The minimum oxygen concentration reported was 0.6% v/v. Carbon monoxide levels were also detected in several boreholes at a maximum concentration of 99ppm. Flow rate peaked at 1.7 l/h. The gas screening value (GSV) for carbon dioxide and methane was then calculated as 0.9146 l/hr and 0.1938 l/hr respectively. RGS consider the site to be fully classified as Characteristic Situation Level 3.

Visual and olfactory evidence of contamination was noted, specifically with hydrocarbon odours recorded at WS01 to WS09. Notably, soil testing revealed elevated PAHs and TPHs detected. However, when considering the lack of free product, no PAH or TPH values were found in excess of the screening assessment value. In addition, no asbestos was found in any of the samples tested.

The conceptual site model has been updated and is presented in Table 16 of the report. In general, soil-borne contamination pollutant linkages have been rated low risk and ground gases high risk. The table advises that site won materials should be tested during groundworks if these are to be re-used on site.

Remediation options and further work recommendations were provided in the report. Importantly, RGS noted that many areas were inaccessible due to a significant amount of plant stored on the site. They strongly recommend conducting a watching brief during the groundwork phase after the site is cleared to ensure no significant spills have occurred. If any olfactory evidence is observed, further contamination testing is advised.

Comments

After reviewing the provided report, we maintain that additional information concerning contaminated land issues at this site is necessary. The proposals are for a commercial/industrial use. The gas screening value calculated by RGS following the gas monitoring, puts the site in Characteristic Situation Level 3 in accordance with CIRIA C665 guidance. The gas concentrations, especially for methane, are very high, with the boreholes showing the highest readings beneath the proposed building footprint.

However, there is a lack of interpretative and detailed gas information in the report. We require a comprehensive ground gas risk assessment, that should form part of a revised Phase 2 report or addendum report. This assessment should feature a diagrammatic conceptual site model, providing detailed insights into flow rates, migration pathways, and potential correlations between observed gas concentrations, atmospheric pressure fluctuations, and groundwater changes. While utilising existing ground data is encouraged, we welcome additional investigation work to validate the conclusions drawn from any forthcoming ground gas risk assessment.

Additionally, we note that the limitations to the intrusive investigation conducted so far due to on-site obstructions. Given the nature of the stored machinery/plant, we believe there is an increased likelihood of contamination, including potential risks from vapours. For these reasons, we also expect to receive proposals for a post-demolition and post-clearance investigation as part of a revised Phase 2 report, however, we do not require this information before the application is determined.

Recommendations

On 19th March, Environmental Health discussed these concerns with RGS, and later Acumen Designers and Architects Ltd. We understand from these conversations that additional information will be provided in support of the application.

Upon receipt of such information, we request that the LPA consult Environmental Health for comments **before the application is determined,** to ensure the safe development and occupation of the site in accordance with Policy LP53 of the Kirklees Local Plan and paragraph nos. 189 and 190 of the National Planning Policy Framework.

Until then, we are unable to provide any additional contaminated land comments or recommend any conditions at this time.