

**Consultation Response from: KC Environmental Health (Pollution & Noise Control)**
**2023/91116 - Land off, Primrose Lane, Hightown, Liversedge, WF15**
**Erection of 77 dwellings, with access from Darley Road and associated works**
**Date Responded:**  
**16<sup>th</sup> December 2024**
**Responding Officer:**  
**NH**
**Responding Ref:**  
**WK/202439717**
**Contaminated Land**

In our previous response, dated 27th February 2024 (WK/202404236), we raised several points that required clarification or additional information. A Technical Note authored by Wardell Armstrong (4<sup>th</sup> December 2024, LD11143) has been received in support of the application to address our concerns.

Environmental Health had previously queried the lack of investigation in the woodland area to the north of the site. The technical note confirms that five additional boreholes were drilled to depths between 3 and 5.45m bgl, generally encountered made ground over clay. This made ground consisted of dark grey, sandy, clayey gravel with mudstone, siltstone, and sandstone, and occasional fragments of brick and glass in the upper layers of WS04 and WS06. Suspected clinker, brick, and ceramic were found in WS04 between 1.10m and 1.55m bgl. Aside from the suspected clinker in WS04, no visual or olfactory evidence of contamination was observed in the woodland area's made ground.

Four samples were taken from the made ground/colliery spoil in the woodland area and tested for asbestos, soil organic matter, pH, sulphate, total cyanide, metals, phenols, and speciated PAHs. The results were screened for human health risks based on a 'Public Open Space – Residential End Use' criteria. Wardell Armstrong reported no concentrations above the applicable soil screening values in any of the samples.

An additional 12 soil samples from the colliery spoil across the wider site were also screened against the same criteria. These samples contained contaminant concentrations similar to those found in the woodland area, with no concentrations exceeding the applicable soil screening values. Consequently, Wardell Armstrong conclude that this material is unlikely to pose an unacceptable risk to human health based on the proposed end use.

We have also requested additional information regarding the calorific value of the made ground on site. The technical note explains that two samples of colliery spoil were taken from TP11 and Trial Trench no. 4, with results of <1 MJ/kg and 7 MJ/kg, respectively. It states that materials with a calorific value >7 MJ/kg should be kept at least 1m away from potential ignition sources and not left exposed for extended periods to reduce combustion risk. When used in private gardens or soft landscaping, a 1m layer of inert material should be placed to prevent accidental ignition. Wardell Armstrong also recommends further calorific value testing during earthworks to ensure that colliery spoil reused as fill material does not exceed 7 MJ/kg within the upper 1m or near potential ignition sources.

We also requested additional commentary on the sampling methodology. Wardell Armstrong has now provided a summary of the testing to date, with a total of 49 soil samples chemically tested for a range of potential contaminants, reflecting the site's historical and current uses (colliery, railway, and agricultural land).

In our earlier response, we also noted that additional testing of the subsoils would be necessary before reuse on site. In response, Wardell Armstrong identified an error in the subdivision of soils within the previous investigation soil logs by MDJA, describing it as "misleading," as Wardell Armstrong found only topsoil underlain by residually weathered bedrock. Exceedances of arsenic, beryllium, and dibenzo(ah)anthracene were recorded in the samples taken at those depths. The technical note concludes that site-won material is generally suitable for reuse, but in cases with elevated contaminants or asbestos fibres, the material should be placed at depth beneath a clean cover system to break the source-pathway-receptor linkage.

Regardless, Wardell Armstrong recommend that all material intended for reuse on site be retested during the earthworks cut and fill process to ensure it is suitable for reuse at the required depth. If adequate volumes of suitable material are not obtained during the soil strip and cut and fill exercise, additional clean topsoil and subsoil may need to be imported. In such cases, the technical note states that appropriate testing or certification will be required to confirm the material is suitable for use.

We previously raised several points regarding the gas monitoring conducted on site. Specifically, we queried the number of visits capturing worst-case atmospheric pressure scenarios, the response zone depths for each borehole, information on the targeted gas sources, and the relation to piling activities and gas risk on site.

Since our comments, Wardell Armstrong has conducted a supplementary gas monitoring visit in November 2024 at one existing borehole. None of the MDJA boreholes could be located, and only one Wardell Armstrong borehole (BH05) was accessible. Located in the northeastern section of the proposed residential development area, BH05 screens the made ground and underlying natural material between 1m and 4m bgl. Pressure conditions were below 999mb, though a rising pressure trend was noted before the visit.

Wardell Armstrong reports no detection of methane or carbon monoxide in the additional monitoring, but a peak carbon dioxide concentration of 6.6% and a steady flow rate of 0.3l/hr were recorded. These levels result in a Gas Screening Value (GSV) of 0.0198, placing it in the CS1, which does not require gas protection measures. However, based on the carbon dioxide concentration exceeding 5%, Wardell Armstrong suggest there may be justification to increase to CS2.

However, the technical note acknowledges that no gas monitoring was carried out by MDJA under worst-case conditions (i.e., atmospheric pressure below 999mb and falling pressure). Due to uncertainties in the existing data such as the lack of monitoring under worst-case conditions, unclear response zone locations, and no monitoring near mine shafts, Wardell Armstrong recommend that a comprehensive ground and mine gas risk assessment be conducted assessing all potential gas sources, migration pathways, and considering the proposed piling activities to determine if additional protective measures are needed.

#### Comments

We have reviewed the Technical Note by Wardell Armstrong (4th December 2024, LD11143) and generally accept the report. We make the following observations. We expect that any future supplementary geoenvironmental investigations include a detailed ground gas risk

assessment. Additionally, we acknowledge the commentary on combustible materials. Only two samples of colliery spoil have been tested, with results of <1 MJ/kg and 7 MJ/kg. Neither sample was taken from the woodland area, which is confirmed as colliery spoil/made ground. We understand this area will be retained as informal public open space, remaining woodland, with no services (except water) planned beneath it.

Before development commences, we request clarification on the risk of spontaneous combustion in the colliery spoil in the woodland area. Do the additional testing proposals in Section 4 of the technical note and/or clean cover proposals in Section 2 of the technical note (stating a 1m thick inert layer for areas of private gardens or soft landscaping) extend to this area of the site?

Overall, we are now able to revise our previous recommendations and recommend contaminated land conditions to ensure the safe development of the site.

### **Recommendations**

#### **CLC2 Submission of a supplementary Phase 2 Intrusive Site Investigation Report - Condition**

Groundworks (other than those required for a site investigation report) shall not commence until a supplementary Phase II Intrusive Site Investigation Report by a suitably competent person has been submitted to and approved in writing by the Local Planning Authority.

**Reason:** To ensure the safe occupation of the site in accordance with Policy LP53 of the Kirklees Local Plan and paragraph nos. 196 and 197 of the National Planning Policy Framework

#### **CLC3 Submission of Remediation Strategy - Condition**

Where site remediation is recommended in the Phase II Intrusive Site Investigation Report approved pursuant to condition (CLC2) further groundworks shall not commence until a Remediation Strategy by a suitably competent person has been submitted to and approved in writing by the Local Planning Authority. The Remediation Strategy shall include a timetable for the implementation and completion of the approved remediation measures.

**Reason:** To ensure the safe occupation of the site in accordance with Policy LP53 of the Kirklees Local Plan and paragraph nos. 196 and 197 of the National Planning Policy Framework

#### **CLC4 Implementation of the Remediation Strategy - Condition**

Remediation of the site shall be carried out and completed in accordance with the Remediation Strategy approved pursuant to condition (CLC3). In the event that remediation is unable to proceed in accordance with the approved Remediation Strategy or contamination not previously considered in either the Preliminary Risk Assessment or the Phase II Intrusive Site Investigation Report is identified or encountered on site, all groundworks in the affected area (except for site investigation works) shall cease immediately and the Local Planning Authority shall be notified in writing within 2 working days. Works shall not recommence until proposed revisions to the Remediation Strategy have been submitted to and approved in writing by the Local Planning Authority. Remediation of the site shall thereafter be carried out in accordance with the approved revised Remediation Strategy.

**Reason:** To ensure the safe occupation of the site in accordance with Policy LP53 of the Kirklees Local Plan and paragraph nos. 196 and 197 of the National Planning Policy Framework

**CLC5 Submission of Verification Report - Condition**

Following completion of any measures identified in the approved Remediation Strategy or any approved revised Remediation Strategy a Verification Report by a suitably competent person shall be submitted to the Local Planning Authority. No part of the site shall be brought into use until such time as the remediation measures have been completed for (that part of) the site in accordance with the approved Remediation Strategy or the approved revised Remediation Strategy and a Verification Report in respect of those remediation measures has been approved in writing by the Local Planning Authority.

**Reason:** To ensure the safe occupation of the site in accordance with Policy LP53 of the Kirklees Local Plan and paragraph nos. 196 and 197 of the National Planning Policy Framework

**CLC7 Contaminated land - Footnote**

All contamination reports shall be prepared by a suitably competent person, as defined in Annex 2 of the National Planning Policy Framework. Reports must be prepared in accordance with the following guidance:

- *Land Contamination Risk Management (LCRM)*
- *BS 10175:2011+ A2:2017 Investigation of Potentially Contaminated Sites. Code of Practice*
- *Development on Land Affected by Contamination - Technical Guidance for Developers, Landowners & Consultants - (v11.2) June 2020* by the Yorkshire and Lincolnshire Pollution Advisory Group.

The conditions relate to Planning Control only. Approval under the Building Regulations may also be required, and the applicant should contact their Building Control Provider for further information. Any other necessary consent must be obtained from the appropriate authority. If the applicant commences work without discharging conditions, they will be at risk of enforcement action and invalidating the permission if the planning condition is a pre commencement condition.

**CEMPC Construction Environmental Management Plan - Condition**

Prior to development commencing a Construction Environmental Management Plan (CEMP) shall be submitted to and agreed in writing with the Local Planning Authority. The plan shall describe in detail the actions that will be taken to minimise adverse impacts on occupiers of nearby properties by effectively controlling:

- Noise & vibration arising from all construction related activities. This should also include suitable restrictions on the hours of working on the site including times of deliveries.
- Dust arising from all construction related activities, which should include measures to monitor and record the emissions of dust during construction, in accordance with Table 7-1 page 23 of the Air Quality Assessment by SLR (Ref: 410.064882.00001) (dated: November 2022)
- Artificial lighting used in connection with all construction related activities and security of the construction site.

A communications plan detailing the responsible person, their contact details and how this will be communicated to local residents and the Local Authority must be included. The agreed plan shall be adhered to throughout the construction of the development.

**Reason:** To safeguard the amenities of the occupiers of nearby properties in accordance with part 15 of the NPPF and LP52 of the Local Plan.

**CEMPF Construction Environmental Management Plan - Footnote**

Noisy construction related activities should not take place outside the hours of:

07.30 to 18.30 hours Mondays to Fridays

08.00 to 13.00 hours, Saturdays

With no noisy activities on Sundays or Public Holidays

Institute of Air Quality Management document “Guidance on the assessment of dust from demolition and construction” Version 1.1 2014 provides detailed information regarding dust control.

Kirklees Council has powers under Section 60 of the Control of Pollution Act 1974 to control noise from construction sites and may serve a notice imposing requirements on the way in which construction works are to be carried out. It has additional powers under Sections 80 of the Environmental Protection Act 1990 to prevent statutory nuisance including noise, dust, smoke and artificial light and must serve an abatement notice when it is satisfied that a statutory nuisance exists or is likely to occur or recur. Failure to comply with a notice served using the above-mentioned legislation would be an offence for which the maximum fine on summary conviction is unlimited.